

The Soviet Armed Forces: A History of Their Organizational Development

A Soviet View

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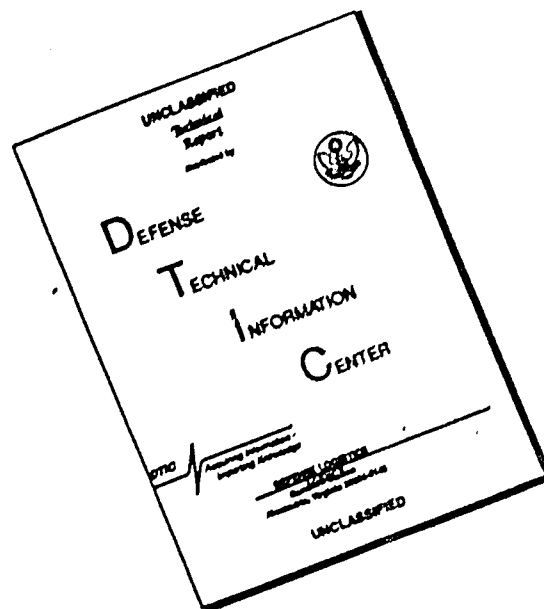
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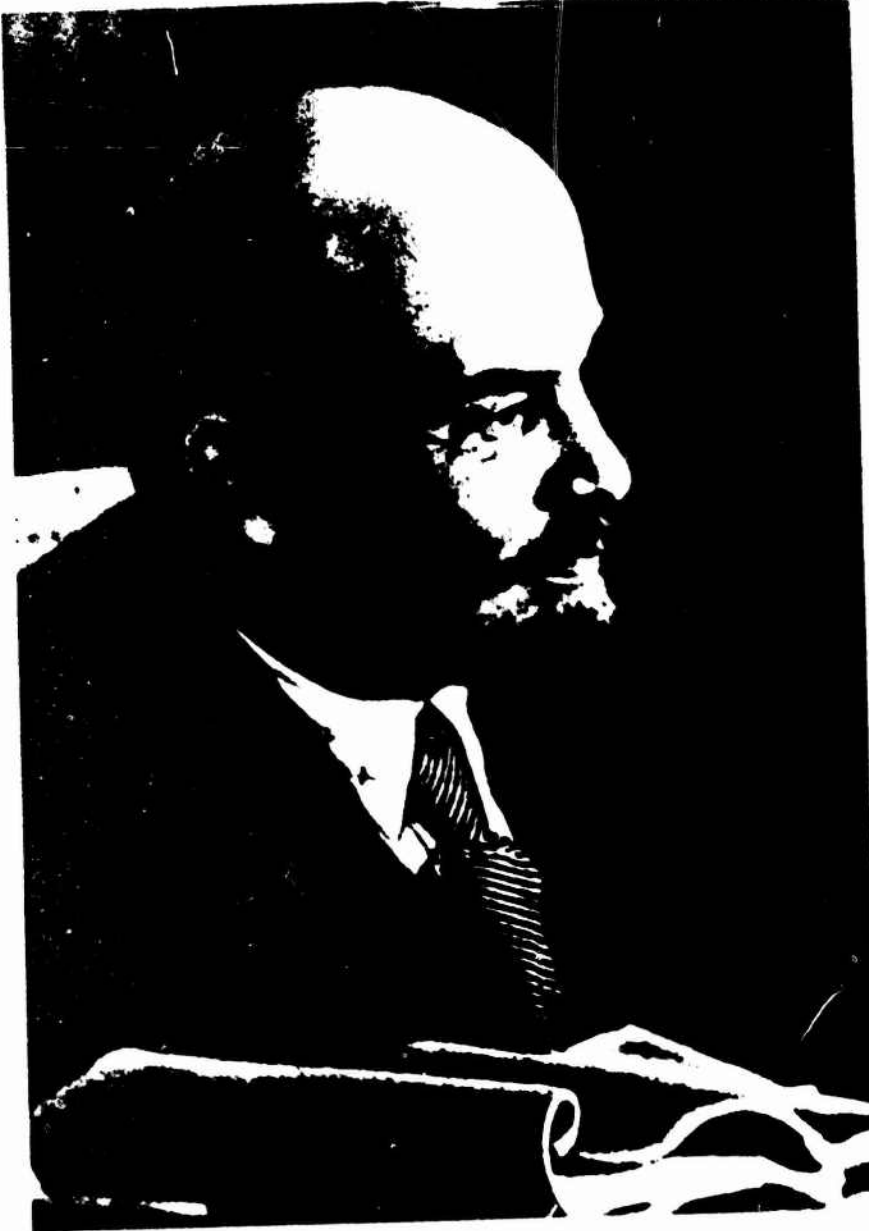
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ИНСТИТУТ ВОЕННОЙ ИСТОРИИ МИНИСТЕРСТВА ОБОРОНЫ СССР

СОВЕТСКИЕ ВООРУЖЕННЫЕ СИЛЫ

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The Soviet Armed Forces: A History of Their Organizational Development

A Soviet View



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The translation and publication of **The Soviet Armed Forces: A History of Their Organizational Development** does not constitute approval by any U.S. Government organization of the inferences, findings, and conclusions contained therein. Publication is solely for the exchange and stimulation of ideas.

Introduction

The history of the Soviet Armed Forces began with the formation of the world's first socialist workers' and peasants' state. Born and seasoned in the fire of the Civil War and in encounters with the interventionists and the White Guards, the Soviet Armed Forces upheld the freedom and independence of their socialist Motherland during the Great Patriotic War. Now, with a distinguished combat record behind them, they have become a bulwark for the gains of socialism and an important factor in preventing war and preserving peace. A resolution adopted by the CPSU* Central Committee on the occasion of the sixtieth anniversary of the Great October Socialist Revolution contains the following passage: "The entire course of the campaign against internal counterrevolution and foreign interventionists showed that a revolution can consolidate its victory only if it knows how to defend itself."

Many works have been written about the Soviet Army and Navy, their history, and their combat record. This book, written to mark illustrious dates in the history of the USSR, namely, the sixtieth anniversary of the Great October Socialist Revolution and the sixtieth anniversary of the Soviet Armed Forces, is devoted to the problems attending the growth of the Soviet Armed Forces. The most important problems involved equipment, organizational structure, manning, command and control, instruction of officers, training and indoctrination of personnel, and logistic support of the troops.

Being an integral part of a socialist state, the Armed Forces of the USSR were strengthened and improved to ensure the necessary conditions for building socialism and communism. The history of their creation and development is closely linked with the economic, sociopolitical, scientific, technological, and internal changes that have taken place in the Land of the Soviets. Throughout the history of the Soviet Armed Forces, their organizational development has been affected by the following foreign influences: the worldwide disposition of forces in the class struggle, the growth of militarism in capitalist countries, the nature of the military threat, the state of the armed forces of aggressors, their combat readiness, their deployment in possible theaters of war, and so on.

*[The Communist Party of the Soviet Union—U.S. Ed.]

This book performs a threefold function: it demonstrates on the basis of Marxist-Leninist methodology, as well as through resolutions by the Communist Party and the Soviet state on military problems, that there was a valid need for a new type of army; it sets forth the principles governing the organizational development of the Soviet Armed Forces; and it illuminates the Communist Party's constant striving to secure the practical implementation of these principles at all stages in the history of the socialist Motherland.

The authors substantiate the Leninist proposition that the creation of an army of the socialist type was a result of the need to defend the revolutionary gains enjoyed by the workers, who had overthrown the authority of the exploiting classes: the capitalists and the landowners. After the victory of the Great October Socialist Revolution, the Soviet people not only had to build a new society but also had to defend it, arms in hand, against the onslaught of counterrevolution and against repeated savage attacks by international imperialism. "Without armed defense of the socialist republic," noted V. I. Lenin, "we could not have survived."

The Soviet Armed Forces were created under the immediate guidance of V. I. Lenin, who worked out and scientifically substantiated a military program for the proletarian revolution and a doctrine on the defense of the socialist Fatherland. The immortal Leninist ideas and principles on the organizational development of a new type of army underlie the military policy of the CPSU. The Communist Party's complete direction of the entire national defense became an unshakable principle of military development and a decisive source of the Soviet Army and Navy's unconquerable power.

The organizational development of the Armed Forces in the world's first socialist state was unprecedented and therefore difficult. Addressing itself to this problem, the Communist Party had recourse primarily to Marxist-Leninist doctrine on war and the army, to military experience acquired during the Russian revolutions, and to the lessons learned from the formation of the Red Guards. Creative use was made not only of all that was valuable and progressive in the world history of military affairs but also of the military traditions of the Russian nation and the experience of its emancipatory wars.

The Soviet Armed Forces differ fundamentally from the bourgeois army, which is the armed support of an exploiting class, an instrument of oppression, and a force intended for the seizure of foreign territory. Characterizing the social nature and role of the bourgeois army, V. I. Lenin wrote that it "... is the most ossified instrument for maintaining the old order, and the most rigid bulwark of bourgeois discipline, perpetuating the dominance of capital, preserving and inculcating servility in the working class, and ensuring its subordination."

The army of the socialist state, openly class-oriented, is the army of a triumphant peasantry and proletariat. It was engendered by the people and is intimately associated with them. For the first time in history, an army's weaponry was not turned against the people but was used to defend the freedom and revolutionary gains of the workers; not used to seize foreign soil but to defend the native land against alien invaders. This army promotes the international solidarity of the working class, increases the power of the socialist fraternity, and helps preserve world peace.

The Soviet Army and Navy were created and developed on new economic, sociopolitical, and spiritual bases. They drew on the unlimited industrial potential of the socialist method of production and a planned national economy. They reflected the nature of the Soviet political system and the inviolable unity of Soviet society. Finally, they rested on the culture of a free people and on the Marxist-Leninist ideology that prevailed in their country. These bases constitute the deepest source of the strength and invincibility of the Soviet Armed Forces.

Presenting their data by the problematic-chronological method, the authors are able to disclose the most important trends in the activity of the Communist Party and the Soviet government to improve the Soviet Army and Navy. Attention is paid primarily to the development of the Soviet Armed Forces during the wars that had to be fought in defense of the socialist Fatherland, as they constituted a rigorous test of the viability and suitability of all elements of military organizational development.

The Armed Forces of the Land of the Soviets matured during the years of the Civil War and foreign intervention. Amid economic chaos and acute shortages of arms and provisions, the Communist Party managed to create the huge regular Red Army with unified, centralized control, iron discipline, and high morale. This army, crushing internal counterrevolution and defeating the imperialist aggressors, honorably defended the gains of the Great October Socialist Revolution. It was in the heat of battle that the system of military command and the system for training Soviet military cadres were created and refined, and the forms and methods of party-political work took shape. In the conflict with the enemies of the revolution, the Soviet art of war was born.

Much attention is devoted in this book to the organizational development of the Soviet Armed Forces during the years between the two world wars. The growth of the Soviet Army and Navy during this period was inseparably linked with the implementation of Lenin's plan for building socialism, with the industrialization of the country, the collectivization of agriculture, the cultural revolution, and the further strengthening of the friendship between the peoples of the USSR. The efforts of the Communist Party and the Soviet government were devoted to accomplishing a

technical reconstruction and reorganization of the Armed Forces, thus increasing their fighting strength and the nation's defense.

The severest of trials became the lot of the Soviet Armed Forces during the years of the Great Patriotic War. This book tells about the diverse activities of the party and government in mobilizing the Soviet people and the entire country to defeat the fascist hordes; in strengthening, reequipping, and restructuring the Armed Forces; and in intensifying party-political work. The measures adopted were instrumental in securing the crushing defeat of German fascism and Japanese imperialism, in the course of which the fighting strength and high morale of the socialist army were displayed with unprecedented force, as was the advanced nature of the Soviet art of war.

The authors of this book accord an important place to questions crucial for the organizational development of the Soviet Army and Navy during the postwar years. The victory of the Soviet people and their Armed Forces in the Great Patriotic War resulted in a radical change in the correlation of forces in the world arena in favor of socialism. However, the reactionary and aggressive circles of the imperialist powers were unwilling to recognize the inevitable course of history. As soon as the war was over they pursued a policy to weaken world socialism and its champion, the USSR. The Communist Party and the Soviet government took effective steps to strengthen the country's defensive capability, being at pains to provide the latest in combat equipment and armament, including nuclear weapons.

Through extensive factual data, the authors review the practical measures adopted to make the Soviet Army and Navy stronger and to increase their combat readiness. It is emphasized that in the prevailing international situation the combat readiness of the Soviet Armed Forces must be such as to ensure their timely deployment and entry into hostilities, the repulse of a surprise attack, and the infliction of devastating blows on the enemy. Recognizing the continuing military threat posed by imperialism, the party and government regard a high level of combat readiness as the most important goal of military organizational development.

The authors devote considerable space to the influence of scientific and technological progress on the organizational development of the Soviet Armed Forces. In this context, the main trends of the revolution in military affairs are characterized, and insight is given into the activity of the Communist Party and the Soviet government to improve the services today. The advent of a developed socialist society, our country's possession of a powerful economic, scientific, and technological base, and the profound sociopolitical changes that have taken place make it possible to solve a wide variety of problems in the defense of the USSR.

Beneficial changes have taken place in Soviet society as a result of plans formulated by the 25th CPSU Congress for building communism. These changes are helping to further increase the defensive potential of the Soviet state and the fighting strength and combat readiness of the Armed Forces. While pursuing a peace-loving policy and speaking out against the arms race, the Soviet Union appropriates for military purposes the funds needed to provide the Armed Forces with all types of modern weapons. In doing so, the Soviet Union seeks no unilateral advantage whatever, arming itself in strict conformity with its international agreements and obligations.

It is emphasized in the present work that strengthening the defensive potential of the USSR and developing the Armed Forces serve not only the interests of the Soviet state but also those of the entire socialist community, while contributing selflessly to the preservation of world peace and to the security of nations. Owing to the joint efforts of the Marxist-Leninist parties and the governments of the socialist countries united by the Warsaw Pact, a solid system of comprehensive ties and cooperation has been formed and is being expanded in all aspects of military organizational development. It is based on the principles of proletarian internationalism, mutual respect, the equality of rights and the sovereignty of each state, noninterference in internal affairs, and friendly mutual aid.

The experience gained in the organizational development of the Soviet Armed Forces during the 60 years of their existence is of enormous practical and educational importance. Studying it, the officer gets a better idea of the patterns and principles governing such organizational development and a deeper insight into the material and spiritual sources of the Armed Forces' invincible might. Assimilating it, the serviceman acquires high morale and psychological qualities, a sense of responsibility for his country's destiny, integrity and efficiency in the performance of his duties, and purposeful determination in the struggle to maintain his unit or vessel in constant combat readiness.

The Soviet people greatly respect and love their Armed Forces, and they value the difficult work of their servicemen. In his report to the 25th CPSU Congress, Secretary General of the Central Committee L. I. Brezhnev mentioned the outstanding achievements in national defense, giving high praise to the present state of the Soviet Armed Forces. "The Soviet people may rest assured," he emphasized, "that the fruits of their creative labors are under reliable protection."⁴ Underlying this assessment is the great effort of the Communist Party and the Soviet government in the organizational development of the Armed Forces and the improvement of their combat skills.

At present there are no forces on earth that would not have to reckon with the power of the Soviet Armed Forces. Under the guidance of the

Communist Party and its Leninist Central Committee, the Armed Forces are constantly developing and improving, and they vigilantly stand on guard for peace, democracy, and socialism.

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Notes

1. *O 60-y godovshchine Velikoy Oktyabr'skoy sotsialisticheskoy revolyutsii. Postanovleniye TsK KPSS ot 31 yanvarya 1977 goda* [On the Sixtieth Anniversary of the Great October Socialist Revolution: A CPSU Central Committee Resolution Dated 31 January 1977] (Moscow, 1977), p. 5.
2. V. I. Lenin, *Polnoye sobraniye sochineniy* [Complete Collected Works] (Moscow: Politizdat, 1946), XXXVIII, 138. [Hereafter cited as Lenin—U.S. Ed.]
3. Lenin, XXXVII, 295.
4. *Materialy XXV s'yezda KPSS* [Proceedings of the 25th CPSU Congress] (Moscow, 1976), p. 83.

PART I: THE CREATION OF ARMED FORCES IN THE LAND OF THE SOVIETS

Chapter 1. The Creation of the Soviet Armed Forces and Their Initial Organizational Development on a Voluntary Basis

(October 1917-April 1918)

1. The Birth of a New Type of Army

With the victory of the Great October Socialist Revolution, the working class of Soviet Russia and its militant vanguard, the Communist Party, were confronted with the pressing and crucial problem of defending the gains of the republic. This was a genuine need in the establishment and development of socialism, and this was the sacred duty of the party to the people and the workers of the entire world. V. I. Lenin wrote that "if the proletariat, having become the ruling class, wishes to remain so, it must prove this by its military organization."

To defend the socialist Fatherland, spirit, enthusiasm, and resolve on the part of the masses to beat the enemy were not enough in themselves. The prospect was one of protracted, intense work by all elements of the party and state apparatus, not only in the military sphere proper but also in the economic, political, and intellectual spheres of public life. A new army had to be formed, the interior zone strengthened, and the national economy improved. Universal military training for workers had to be introduced, together with the strictest revolutionary discipline. Civilian morale had to be raised, and so on. This set of measures for military organizational development had to be implemented in the spirit of the Communist Party's political policy and ideology and in accordance with the overall course of the struggle for socialism. The central task was to create and strengthen a new socialist type of army. As V. I. Lenin said, "A firm and strong army is needed for defense. . . ."

Proceeding to build such an army, the party depended primarily on the experience acquired before the October Revolution in military affairs and combat, on the experience of establishing the proletarian armed forces, and on the theoretical tenets developed by Marxist classics. The armed worker detachments of the 1905-07 revolution were a source of seasoned Bolshevik military cadres. After the overthrow of the tsarist autocracy by popular uprising in February 1917, large factories and industrial centers in Russia saw the emergence of armed detachments of worker-volunteers dedicated to the revolution. These detachments were called the Red Guards, and they were the embryo and prototype of the socialist army.

The organizational development of the Red Guards was based on the principle of manning by industrial regions. The primary organizational and combat units were organized at the plants and factories. Such units were combined to form a platoon, platoons to form a company or detachment, and companies to form a battalion up to 600 strong. They were armed mainly with rifles, machine guns, and revolvers. Red Guard detachments were directed by municipal or district staffs, which maintained close contact with party committees and with the Central Committee of the RSDRP(b).^{*} Officers were elected, and instructors were appointed by the staffs.

Concomitantly with the creation and reinforcement of the Red Guards, the Communist Party conducted a campaign to rally enlisted masses of the tsarist army and navy under its own political slogans to win them over to the revolution. At the fronts, in the large internal garrisons, and in the Baltic Fleet, there were strong Bolshevik military organizations. Their activity was unified and directed by the Military Organization under the Central Committee of the RSDRP(b).

From February to October 1917, the party had considerable success in creating armed forces for the revolution. In Petrograd they numbered more than 20,000 Red Guards, 60,000 Baltic Fleet sailors, and about 150,000 soldiers of the Petrograd Garrison. The counterrevolution could oppose these forces with a mere 30,000 to 40,000 soldiers, cadets, and Cossacks loyal to the Provisional Government.

The growing resistance of counterrevolutionary forces, which relied on foreign powers for support, made organizing a socialist army more urgent. The first legislative acts initiating the organizational development of such an army were the proclamations of the 2nd All-Russian Congress of Soviets on the creation of military organs for the Soviet state.

^{*}[RSDRP(b)—*Russiy'skaya sotsial-demokraticheskaya rabochaya partiya (bol'shevikov)*
'Russian Social Democratic Workers' Party (of Bolsheviks)'—U.S. Ed.]

On 26 October 1917, the 2nd All-Russian Congress of Soviets established, within the Council of People's Commissars, the Committee for Military and Naval Affairs, whose membership included V. A. Antonov-Ovseyenko, N. V. Krylenko, and P. Ye. Dybenko. On 27 October, at the suggestion of V. I. Lenin, this committee's membership was enlarged to include representatives of the Military Organization under the party's Central Committee and representatives of the Petrograd Military Revolutionary Committee, which had been formed during the preparation for the October uprising. Thus enlarged, the committee was called the Council of People's Commissars for Military and Naval Affairs, and somewhat later, the People's Commissariat for Military Affairs. Its membership was further enlarged by the inclusion of V. N. Vasil'yevskiy, K. S. Yeremeyev, B. V. Legran, K. A. Mekhonoshin, and E. M. Sklyanskiy. The Collegium of the People's Commissariat for Military Affairs was headed by N. I. Podvoyskiy, organizer of combat detachments in 1905 and chairman of the Petrograd Military Revolutionary Committee.¹

The control elements for a new navy were created with similar vigor. On 8 November 1917,* the revolutionary sailors who were delegates to the 2nd All-Russian Congress of Soviets created the Naval Revolutionary Committee, of which the Bolsheviks N. A. Khovrin, V. P. Yevdokimov, A. V. Baranov, and others were members. Elected as the committee's chairman was Baltic representative I. I. Vakhrameyev. The Naval Revolutionary Committee supervised the organizational development of the new navy.

The Air Force also got new control elements. On 10 November 1917, a Bureau of Commissars was created for the aviation and lighter-than-air units of the Petrograd Garrison. Its chairman was military pilot A. V. Mozhayev, who had participated actively in the Great October Socialist Revolution. The bureau played an important role in the democratization of the air units in the capital and in the formation of the first Red Guard air detachments.

Red Guard detachments and revolutionary-minded military units constituted the main armed force of the victorious proletariat at this time. Although these forces had successfully repelled the first sallies of the counterrevolution against Soviet authority, they could not withstand the combined forces of the interventionists and White Guards.

The Communist Party and the Soviet government could not use the old army to defend the gains of the socialist revolution. Being the armed support of a bourgeois-landowner regime, this army was under the influence of officers hostile toward Soviet authority. Besides, it had lost its combat capability.

* This and all subsequent dates are given according to the Gregorian calendar.

It was essential to break up the old army and to create a proletarian military organization capable of suppressing the resistance of the overthrown exploiting classes and of reliably protecting the Soviet state against the armed onset of international imperialism. V. I. Lenin pointed out that the proletariat, while rising to supremacy, "could never have achieved this mastery, and cannot now consolidate it, other than by completely dismantling the old army . . . and going through a difficult, agonizing period without any army whatever . . . and by gradually developing, during a painful civil war, a new army, a new discipline, and a new military organization of a new class."⁴

Scrapping the old army was itself a complex task, which demanded of the party an immense amount of organizational and political work and great skill in guiding the masses.

A top-priority task was the sequential reorganization the War Ministry. First of all, the agencies in the capital and among the troops that performed police functions and conducted ideological indoctrination of personnel were abolished. Among them were the War Ministry's Political Directorate and establishments under its direction: all counterespionage agencies, whose functions included combating the revolutionary movement; the branches of the Main Directorate of Military Justice; the Directorate of Chaplains; the Directorate of Military Censorship; those branches of the War Minister's office in charge of awards and promotions; and so on. The directorates of the inspectors general of artillery, cavalry, and rifle units were also to be disbanded, as were certain sections of the General Staff.

The organs of the War Ministry that managed the supply of materiel to the old army were temporarily retained (including the Main Combat Equipment Directorate, the Main Ordnance Directorate, the Main Engineering Directorate, and the Main Quartermaster Directorate). However, they were radically reorganized to strengthen the influence of Soviet authority and to extend the exercise of collegial direction in practical matters.

The dismantling of the old military apparatus was done under the conditions of an acute class struggle. For example, General Dukhonin, removed from the post of supreme commander on 22 November 1917 for failing to comply with the instructions of the Council of People's Commissars, did not lay down arms at once, but turned the General Headquarters at Mogilev into a dangerous seat of counterrevolution. At Lenin's bidding, revolutionary soldiers, sailors, and Red Guard detachments—commanded by N. V. Krylenko, M. K. Ter-Arutyunyants, and R. I. Berzin—were sent from Petrograd and the Western Front to deal with him. The counterrevolutionaries were encircled by the combined force and captured without a fight. Dukhonin was arrested on 3 December, but many of his accomplices managed to escape.

Subsequently, General Headquarters was radically reorganized. Its staff was headed by General M. D. Bonch-Bruyevich. Commissars of the Military Revolutionary Committee were appointed to its sections and services. Fulfilling the instructions of the Soviet government, they carried out a gradual disbandment of General Headquarters, thus wresting from the hands of counterrevolution a very important link in the chain of military command.

The Supreme Naval Collegium was formed to restructure the organs of the Admiralty. P. Ye. Dybenko became chairman of the collegium, which reported to the Naval Section of the All-Russian Central Executive Committee. The post of fleet commander was abolished. The direction of fleets and flotillas was handed over to elective democratic organs.

The Board of Admiralty, highest organ of the old navy, which ruled on broad questions of naval development, was abolished on 6 December 1917 by decree of the Council of People's Commissars. Its powers were delegated to the Naval Section of the All-Russian Central Executive Committee, which was elected by the All-Russian Naval Congresses.¹ During November and December 1917, the naval staff afloat was disbanded, the Admiralty office was closed, and the Main Naval Court of Justice was abolished.

Certain central naval directorates and establishments continued to function under the supervision of designated revolutionary sailors and political commissars. These included the Naval General Staff, the Main Personnel Directorate, the Main Shipbuilding Directorate, and the Main Hydrogeographic Directorate.

The administration of the Air Force was also radically reorganized. Russian army aviation had been headed by the Air Force Directorate. On 2 January 1918, the reorganized Air Force Directorate was headed by the All-Russian Collegium for the Direction of the Air Force of the Republic. Its members were K. V. Akashev, A. D. Anoshchenko, Ye. I. Akhmatovich, N. S. Dubenskiy, and M. P. Stroyev. District collegia for the direction of the new air force were created in the military districts.

The troops could not be disarmed and demobilized when the old army's administrative apparatus was abolished. This would have exposed the front and increased the danger of intervention. Moreover, it was not merely a matter of releasing workers and peasants in greatcoats from military service. It was also necessary to safeguard them against the ideological influence of the bourgeoisie and its political parties, to give them a clear understanding of the goals and tasks of the socialist revolution, and to win them over to the side of Soviet authority. The dismantling of the old army took the form of a complex sociopolitical problem, which boiled down to a struggle for the support of the soldiery.

One of the means adopted to solve this problem was a profound and comprehensive democratization of the old army. The measures implemented to achieve this clearly revealed to the soldiery the features of the dictatorship of the proletariat, the sources of its strength, and the differences between it and the dictatorship of the bourgeoisie.

The first practical steps taken to democratize the old army included abolition of capital punishment at the front, restoration of complete freedom to agitate, and liberation of revolutionary officers and men under arrest for so-called "political crimes." By these measures, Soviet authority decisively dissociated itself from the reactionary politics of the Provisional Government, and made unhindered activity of party members among the soldiery possible.

On 8 November 1917, the 2nd All-Russian Congress of Soviets passed a resolution to establish interim revolutionary committees at the front and army levels. These committees were made responsible for the maintenance of revolutionary order and for the firmness of the front. The congress obliged commanders in chief to comply with the committees' instructions. By this same resolution, commissars of the Provisional Government at the fronts were replaced by commissars of the All-Russian Congress of Soviets.⁶

The new measures soon produced results. At meetings of enlisted men in November and December 1917, motions in favor of supporting Soviet authority were passed. The military revolutionary committees assumed full authority locally, monitored the activity of the command, and dismissed reactionary officers and generals from the old army.

A decree issued by the Council of People's Commissars on 29 December 1917, "On Granting Equal Rights to All Armed Forces Personnel," played a major role in increasing the political activity of the soldiery. The decree abolished military ranks and the former inequalities based on social status. Persons serving in the military were declared to be free and equal citizens. Privileges formerly associated with rank were abolished, as were honorific orders, rank insignia, and officer organizations.⁷

Another decree issued at the same time, "On Elective Command and the Organization of Authority in the Army," subordinated the Armed Forces to the Council of People's Commissars. In military units and formations, full authority was vested in the appropriate enlisted men's committees and in the soviets ['councils'—U.S. Ed.]. The aspects of army life and activity with which the committees and the soviets could not deal directly were so handled as to be under their control. Appointment of officers and other responsible persons by election was established. The electoral procedure was laid down in a special instruction.⁸

The Communist Party's day-to-day administration ensured that the democratization of the old army was well organized. The military revolutionary committees and the soldiers' committees strengthened the ideological and organizing influence of the RKP(b)* on the soldiery. Appointment of officers by election and conferral of equal rights on all Armed Forces personnel opened the way for talented individuals of working-class background to assume command of troops, while limiting the possibility of the old army and the military administrative apparatus being used against Soviet authority. These innovations also permitted selection from the old officer corps of specialists who were in a revolutionary frame of mind and sympathetic to Soviet authority, thus allowing their knowledge and experience to be used in the armed forces of the socialist state.

A resolution on the democratization of the Navy was ratified at the end of December 1917. It entrenched the new principles governing the organization of service afloat that had been put into practice during the first few months after the revolution.

There was a sharp demarcation between class forces in the old army during the democratization process. The most revolution-oriented of the enlisted men in the old army and navy unreservedly recognized Soviet authority and promptly took up arms to defend it.

The overwhelming majority of revolution-oriented soldiers and sailors became staunch supporters of Soviet authority in the provinces after their discharge. At the same time, many reactionary generals, officers, and those soldiers deluded by them did not recognize Soviet authority and went over to the side of counterrevolution.

The democratization of the old army and its demobilization proceeded concurrently. Speaking at the 7th Extraordinary Congress of the RKP(b) on 7 March 1918, V. I. Lenin said that the decision to demobilize the old army, which had endured unheard-of suffering and was wasted by the privations of a war that it had entered ill-equipped, was the correct one.⁹

The first decree on the demobilization of the old army was issued by the Council of People's Commissars on 23 November 1917.¹⁰ The Commissariat for the Demobilization of the Army and Navy was created to manage this demobilization. It was headed by an eminent military figure in the party, M. S. Kedrov. Congresses convened at the front and army levels under the auspices of the commissariat in December 1917 played an important role in the organized release of the soldiers and in the retention of their weapons and other military equipment.

*[RKP(b)—*Rossiyskaya Kommunisticheskaya partiya (bol'shevikov)* 'Russian Communist Party (of Bolsheviks)'—U.S. Ed.]

An order issued by the War Department required that a census of personnel at hand in all units, directorates, and establishments at the front and in the rear be conducted by 23 December.¹¹ Individuals occupying posts requiring special knowledge were not to be released until there was no longer a requirement for their services. All weapons in the possession of released personnel were surrendered to the local soviets, which registered the demobilized soldiers on arrival.

It was intended to carry out the release of naval personnel in several stages. The maintenance of warships, the custody of naval stores and spare equipment, and the security of fleet support facilities were entrusted to shipboard committees.

Owing to the vigorous steps taken by the Communist Party and the Soviet government, 15 call-up age groups of the old army were released between 23 November 1917 and the beginning of March 1918. The huge mass of demobilized soldiers exerted a strong influence on the development of the revolution in the provinces, especially in rural areas.

Speaking at the 3rd All-Russian Congress of Soviets on 24 January 1918, V. I. Lenin summarized the work of the party in the democratization and demobilization of the old army as follows: "... the old army, an army of barrack drill which countenanced the torture of soldiers, is a thing of the past. It has been razed to the ground, and not a trace of it remains."¹²

The Communist Party did the groundwork for the creation of an army for the young Soviet state, which could not remain indefinitely without regular armed forces. The party turned to the workers and peasants with an appeal for their utmost endeavor to defend the gains of the socialist revolution.

At the beginning of 1918, the armed forces at the disposal of Soviet authority amounted merely to Red Guard detachments, with a strength of about 150,000 men, and some detachments of revolutionary soldiers and sailors.

These forces, having promptly eliminated the principal centers of counterrevolution, successfully performed the role of the armed force of the dictatorship of the proletariat during the first months of Soviet authority. However, due to their limited numerical strength, their decentralization, and their poor military training, they were incapable of safeguarding the Soviet republic.

During the second half of December 1917, the international situation became increasingly complicated for the Soviet republic. First, there was an imminent danger of invasion by German troops because, under pressure from militarist circles, the Kaiser's government had broken off

peace talks. Second, England and France concluded a secret agreement in Paris to overthrow Soviet authority and to partition Russia into a French zone, consisting of Belorussia, the Ukraine, and the Crimea, and an English zone, consisting of North Caucasia, Armenia, Azerbaydzhan, and Georgia. England and France then prepared to intervene militarily. Soon there was a united campaign by the imperialists to overthrow Soviet authority. The situation demanded a peaceful interlude to consolidate the gains of the revolution and to create a Red Army capable of defending the country against the imperialist invaders.

The Communist Party and the Soviet government deemed it necessary to forgo the plan formulated by the Collegium of the People's Commissariat for Military Affairs in December 1917 for an army of the militia type, and promptly set about raising a regular army from the workers and peasants that would be capable of upholding the great gains of October.

Under the prevailing conditions of widespread weariness of the imperialist war, economic chaos, and dislocations in transport, the creation of regular armed forces for the proletarian state was attended by immense difficulties: there was a shortage of weapons, uniforms, and officer cadres dedicated to the revolution. Moreover, such an undertaking was a completely unfamiliar affair, without precedent in history. "The problem of building the Red Army," said V. I. Lenin, "was quite new. It had never been posed, even in theory. . . . We undertook a task that no one in the world had ever undertaken before on such a scale."

V. I. Lenin and the party's Central Committee attached great importance to the quest for concrete organizational forms with which to build the new army. Such forms were sought by local party and soviet organs, by the People's Commissariat for Military Affairs, and by the soldiers' and sailors' organizations.

In January 1918, in view of alarming news from the Rumanian Front, an emergency meeting of the Collegium of the People's Commissariat for Military Affairs was convened. Representatives of the General Staff attended, and V. I. Lenin took part. At his suggestion, the first measures to be taken for the creation of the new army were outlined: to explain to the workers the need to prepare for war in defense of the socialist Fatherland; to organize volunteer detachments made up of Red Guards and revolution-oriented soldiers; to detail as many sailors as could be spared from naval vessels to unite these detachments; to issue a decree proclaiming universal compulsory labor service to provide the army provisions, clothing, fodder, transport, and fuel; to make allowance for a possible increase in the pay and rations of those participating in the revolutionary war; to inculcate a volunteer spirit in the draft companies already formed; and to retain in party committees only a nucleus of workers, mobilizing the remainder to lead the newly formed units. On the day after the

meeting, the appropriate instructions were issued to General Headquarters. V. I. Lenin personally supervised the implementation of these measures.¹⁴

On 5 January 1918, there was an emergency meeting of representatives of the People's Commissariat for Military Affairs, the All-Russian Bureau for Front and Rear Military Organizations under the Central Committee of the RSDRP(b), and the Main Staff of the Petrograd Red Guard. It was decided at that meeting to draft a decree on the creation of a new army manned on a voluntary basis.¹⁵ A staff consisting of F. P. Nikonov, V. A. Trifonov, and K. K. Yurenev was formed to implement this decision.

On 8 January 1918, the creation of a socialist army was considered by the Military Organization under the Central Committee of the party, focus being drawn to the principles involved and the ways and means to be adopted. Those present at the meeting were unanimous that the new army should be manned not only by workers but also by peasants. They spoke of the need to create party cells in military units and of the need to improve agitational and organizational work.

At the bidding of V. I. Lenin and the Central Committee of the RSDRP(b), the People's Commissariat for Military Affairs convened a number of meetings with military specialists at which the principles of the organization of the new army were also discussed.

Exploring the ways to build a new, socialist army, the Communist Party depended on the experience and enthusiasm of the soldiers, sailors, and workers at the forefront of the revolutionary movement. At V. I. Lenin's suggestion, the question of the creation of a new army was submitted for discussion at the demobilization congresses held at the front and army levels at the end of 1917.

On 30 December 1917, the delegates to the All-Army Demobilization Congress* selected to participate in the work of the Demobilization Commission under the People's Commissariat for Military Affairs were given questionnaires prepared by V. I. Lenin.¹⁶ The answers to the questions permitted the opinion of the soldiery to be ascertained on such important problems as the annexationist ambitions of German imperialism, the ability of the old army to withstand its onslaught, and so forth.

The delegates' answers were studied carefully by V. I. Lenin and were discussed at a meeting of the Council of People's Commissars. The Council of People's Commissars pronounced the results of the questionnaire

*The congress was held in Petrograd, and was in session from 28 December 1917 until 16 January 1918.

exhaustive and adopted the draft resolution proposed by V. I. Lenin. The draft called for, in particular, "... intensified measures to reorganize the army concomitantly with a reduction in its numerical strength and an improvement in its defensive capability . . ." as well as propaganda and agitation to ensure awareness of the need for a revolutionary war.¹⁷

A letter written by V. I. Lenin was read at the All-Army Demobilization Congress. It contained the following passage: "I warmly welcome the certitude that *the great task of creating a socialist army*, despite all the present difficulties, *will be resolved by you successfully.*"¹⁸

Despite the opposition of the Mensheviks, who proposed that demobilization be merely partial and that the front be reinforced by volunteer detachments and replacement companies, the congress adopted the resolution on the formation of a socialist army proposed by the Bolshevik faction.¹⁹ The congress also recognized the need to proceed promptly with the creation of a socialist army manned by volunteers, as recommended by the organizations standing on the platform of Soviet authority. In its "Appeal to Soldiers, Workers, and the Poorest Peasants," the congress called upon workers and peasants to join the ranks of the new army. "We must create a socialist armed force—a socialist peasants' and workers' army—which can become an army many millions strong in defense of, and for the support of, the socialist revolution."²⁰ To conduct agitational work for the creation of the Workers' and Peasants' Red Army, on 31 December the congress set up the Agitational Collegium, consisting of 46 members. This collegium, in turn, formed the Interim Bureau for the Creation of the Workers' and Peasants' Red Army.

By 14 January 1918, the first volunteer detachment of workers and revolutionary soldiers was formed in Petrograd. Speaking at its ceremonial send-off to the front, V. I. Lenin remarked, "I salute you as the socialist army's first volunteer heroes, who will create a strong revolutionary army. This army is called upon to safeguard the gains of the revolution, the power of the people, the soviets of soldiers', workers', and peasants' deputies, and our entire new and truly democratic order against all the enemies of the people, who are presently using all means at their disposal to undo the revolution."²¹

The class character of the future socialist army and its historic role as the weapon of the dictatorship of the proletariat were formulated in the "Declaration of the Rights of the Working and Exploited People" written by V. I. Lenin. It was ratified by the 3rd All-Russian Congress of Soviets on 25 January 1918, and was the first legislative act to decree "... the arming of the working class, the founding of the socialist Workers' and Peasants' Red Army, and the complete disarming of the propertied classes."²²

The basic tenets of this declaration were amplified in the decree by the Council of People's Commissars on 28 January 1918, "On the Founding of the Workers' and Peasants' Red Army." The draft of the decree was prepared by the Interim Bureau for the Creation of the Red Army, was substantially revised by V. I. Lenin, and was then unanimously ratified by the Council of People's Commissars. The decree defined the basic principles that were to govern the organizational development of the Red Army, indicating that its creation was linked to the transfer of authority to the workers and exploited classes and to the formation of a socialist state. The decree indicated that the Red Army was to serve as an armed bulwark not only against the overthrown landowners and bourgeoisie but also against foreign counterrevolution. The decree emphasized the strictly class character and revolutionary nature of the new army. "The Workers' and Peasants' Red Army," said the decree, "is to be manned by the most socially conscious and best organized elements of the working masses. . . . Each Red Army recruit must be ready to do his utmost and to lay down his life to safeguard the gains of the October Revolution, the authority of the soviets, and socialism."

The Red Army was brought up to authorized strength on a voluntary basis. All those wishing to enlist had to be recommended by a manning committee or by a party, trade union, or other public organization standing on the platform of Soviet authority. If an entire unit came forward, each individual had to be vouched for by all the others, roll-call voting being mandatory.

The volunteer principle explicit in the decree was dictated by historical conditions. The soldier of the old army, like all the working class, was exhausted by the burdens of the imperialist war and was no longer motivated to fight. The worker and peasant, especially the peasant of average means, required more time to become convinced of the need to defend the gains of October. In these circumstances, only the most socially conscious workers and peasants, having joined the Red Army voluntarily, could acquit themselves with honor in the armed defense of the revolution. The 5th All-Russian Congress of Soviets, and later the 8th Congress of the RKP(b), noted that Soviet authority, at the outset, had no alternative but to raise an army by recruitment of volunteers.

The strictly class-oriented selection of volunteers with obligatory recommendation ensured that the ranks of the RKKA* were filled with workers and peasants dedicated to the revolution and capable and worthy of defending the gains of October by force of arms. "Our army is made up of picked men, socially conscious workers and peasants," noted V. I. Lenin. "Each man carries with him to the front an awareness that he is fighting

*[RKKA—*Rabocho-Krest'yanskaya Krasnaya Armiya* "Workers' and Peasants' Red Army"—U.S. Ed.]

not only for the fate of the Russian revolution but also for the fate of the entire international revolution. . . ."²⁴

The aforementioned decree made all workers of the Soviet republic 18 years and over eligible to enter the ranks of the Red Army regardless of their religious convictions or ethnic background, thus departing from the tsarist policy of not admitting "non-Russians" to military service on the grounds that they were untrustworthy. This document laid the foundation for a new army, an army based on the equality and brotherhood of peoples, an army of proletarian internationalism.

In accordance with the decree, all Red Army servicemen were to be clothed and fed at full public expense. Servicemen's dependents incapable of supporting themselves were to be supported by the local soviets.

The decree declared the supreme regulatory organ for the Workers' and Peasants' Red Army to be the Council of People's Commissars. An All-Russian Collegium for the Formation of the Red Army was established under the People's Commissariat for Military Affairs. The function of this collegium was to direct and coordinate the activity of local organizations in forming, training, arming, and supplying the new army. The collegium's responsibilities also included drafting new regulations, instructions, and so forth.

The Workers' and Peasants' Red Navy was founded in accordance with a decree authorized at a meeting of the Council of People's Commissars under the chairmanship of V. I. Lenin on 11 February 1918. It was based on the same principles as the Red Army. The decree contained this passage: "The tsarist navy, manned by universal compulsory military service, is hereby abolished, and a socialist Workers' and Peasants' Red Navy is hereby founded in its place. . . ."²⁵ The Council of People's Commissars established the Collegium of the People's Commissariat for Naval Affairs.

Much administrative work had to be done in all fleets. The Military Section of the People's Commissariat for Naval Affairs was formed to manage the recruitment of sailors for the new navy. Admission boards were formed afloat and in shore establishments. Thousands of revolutionary sailors and representatives of the toiling masses responded to the Bolshevik Party's appeal for volunteers to join the socialist navy.

The decrees that established the Red Army and Red Navy generalized and legitimized the methods developed by the Central Committee of the Communist Party and the Soviet government to create the Soviet Armed Forces, and they played a major role in mobilizing the nation's manpower to thwart the intrigues of imperialism. These decrees laid the groundwork for the subsequent organizational development of the Armed Forces.

2. The Organizational Configuration of the Armed Forces

There was a nationwide campaign to form Red Army detachments in accordance with the Leninist decrees. It was conducted by the All-Russian Collegium for the Formation of the Red Army, by the soldiers' committees, and by the military sections of the local soviets.

K. S. Yeremeyev, commander in chief of the Petrograd Military District, issued an order on 31 January 1918 to form the RKKA's 1st Corps. It was recruited from Petrograd labor and from the most socially conscious of the soldiers in the garrison's reserve regiments. This event marked the birth of a new, revolutionary army, an army of workers and peasants. Unlike the Red Guards, the Red Army men were considered to be on active service, and they assumed all the obligations defined in the decree that authorized the founding of the Red Army.

V. I. Lenin took a personal interest in the assembly of the Red Army's first formation, reading daily summaries and sending for K. S. Yeremeyev to get firsthand reports.

The RKKA's 1st Corps did not have a strict organizational structure (such entities as the division and regiment were absent). Its main combat units were infantry battalions, these being supplemented by machine gun, artillery, motorcycle, and motor vehicle units, by aviation and lighter-than-air detachments, and by a searchlight squad.

The 1st Corps' units lacked authorized tables of organization and equipment. Its numerical strength depended on the number of volunteers coming forward and on the readiness of units to accept them. The situation at the time was such that as soon as a unit was fully manned it had to be sent to the front or to combat internal counterrevolution. In February-March 1918, about 15,000 of the 1st Corps' men were fighting at the fronts. Owing to such factors, the 1st Corps, originally intended for direct conduct of combat actions, turned into a manning pool and an intensive training facility for Red Army detachments.

Right after the 1st Corps was formed at Petrograd, Red Army units and formations were created at Moscow, Ivanovo-Voznesensk, Kostroma, Kazan', and Samara, and in other industrial regions. Units of the new army began formation at the fronts. For example, the commander in chief of the Western Front issued a special order defining the procedure for enrolling volunteers and re-forming units.²⁴ Soldiers of the old army entered the ranks of the Red Army not only individually but also by units. The 5th Trans-Amur Regiment of the 54th Division was almost completely assimilated by the Red Army, as were the 12th and 126th Ryl'skiy Sovetskiy Red Guard rifle regiments, and other regiments. Many aviation and

lighter-than-air detachments, flying schools, and technical schools also decided to merge with the Red Army.

Revolutionary sailors poured into the Red Army by the thousands. They were used to man armored trains, reconnaissance detachments, and assault units. Knowing the dedication of naval personnel to the cause of revolution, People's Commissar for Military Affairs N. I. Podvoyskiy sent the naval command the following letter of instruction: "Each newly formed 1,000-man echelon of socialist army volunteers destined for the front at short notice is to be reinforced with a platoon of sailors to ensure its cohesion."²⁷

Raising the Red Army was made easier by the creation of local registration-mobilization agencies. On 26 January 1918, Supreme Commander N. V. Krylenko urged all local soviets and Army organizations of the front zone to form Red Army units immediately. Each soviet was to have a section, and each Army committee a staff, for this purpose. The registration unit was declared to be a 150-man company. Each soviet was granted the discretionary power to decide what military contingent was necessary to enforce Soviet authority in its region. Within the confines of a province or territory all military formations were at the disposal of the respective soviet. Each soviet, in turn, was obliged to place its military formations at the disposal of the central authority on demand, to wage the campaign against counterrevolution.

These measures were a first step toward the creation of a local apparatus for military administrative purposes, and they put in good order the activity of the local soviets in the creation of the RKKA.

Building a combat-capable regular Red Army was hindered by the sorry state of the country's economy. "The working class inherited from Romanov and Kerenskiy," wrote V. I. Lenin, "a land ravaged in the extreme by their predatory, criminal, oppressive war: a country plundered clean by Russian and foreign imperialists."²⁸

Much of the country's industry was in enemy-occupied territory, and what remained at the disposal of Soviet authority was cut off from the principal sources of raw material and fuel. Also in short supply were provisions and clothing.

By the end of 1917, the reserves of arms and ammunition left by the old army were meager: about 18,000 artillery pieces of various types and calibers, 35,000 machine guns, 5 million rifles, 33 million shells, and 2,100 million rounds of small-arms ammunition.²⁹ A significant portion of this was lost during the German invasion of February 1918 or was seized by interventionists and White Guards. Of the 980 aircraft that the Red Army

had in April 1918, not more than 300 were in good working order. Most of them were obsolete fighters of various foreign designs.³⁰

As the old army was demobilized, all necessary steps were taken to ensure the safekeeping of weapons, combat equipment, and military property. A major role in this was played by the soldiers' committees, which made sure that demobilized personnel surrendered their weapons and that such weapons were then placed in safekeeping. The local soviets were entrusted with registering the surrendered weapons, repairing and storing them, and reissuing them to newly formed units.

V. I. Lenin, the Communist Party, and the Soviet government did everything possible under these conditions to arrange for the production of weapons and combat equipment. The reduction of the munitions industry that had already begun was suspended, worker control over production was introduced, provisioning of the workers was improved, and factories were restored and put into operation.

The Armed Forces had only begun to take shape when the young Soviet republic was placed in mortal danger. On 18 February 1918, the German imperialists launched an offensive throughout the entire front, directing the main thrust at Petrograd. Intervention against Soviet Russia had begun.

The Council of People's Commissars met on 20 February to discuss the defense of the Soviet republic. To concentrate all the resources of the state to repel the interventionists, the Provisional Executive Committee was created and empowered to make decisions on matters that could not be postponed.

On the following day, the Council of People's Commissars appealed to the nation with a decree written by V. I. Lenin entitled "Our Socialist Homeland Is in Danger!" "At the bidding of capitalists of all countries," said this historic document, "*German militarism is intent on suppressing the Russian and Ukrainian workers and peasants, returning land to the landowners, factories to the bankers, and authority to the monarchy. The German generals want to establish their 'order' in Petrograd and Kiev. The socialist republic of the Soviets is in the utmost danger.*"³¹

The decree pronounced the defense of the republic of the Soviets the sacred duty of the workers and peasants of Russia, and it declared the country's human and material resources wholly committed to the cause of revolutionary defense. It obliged all soviets and revolutionary organizations to defend each position to the last drop of blood. Outlined in the decree was a specific program for repulsing the enemy's offensive and for turning the country into a unified armed camp.

The Petrograd Soviet created the Committee for the Revolutionary Defense of Petrograd. On 22 February, N. V. Krylenko addressed an appeal to all citizens, proclaiming universal revolutionary mobilization and announcing the beginning of registration for the Red Army in all district soviets. All able-bodied men who did not enlist were liable to be mobilized for defensive works. By order, demobilization of the old army within the Petrograd Military District was suspended until further notice. Furthermore, the Baltic Fleet was mobilized. The ship committees of the main naval base adopted the following resolution: "All naval personnel shall remain on board their ships or in their units to defend the Soviet Socialist Republic, serving on those vessels and in those partisan detachments or units designated by Soviet authority."³²

The appeals of the Bolshevik Party and the Soviet government produced a massive revolutionary uplift throughout the entire country. Progressive workers, peasants, soldiers, and sailors rose to defend the gains of October. Partisan detachments were formed in the enemy's rear.

At workers' rallies and meetings at many enterprises, motions proposing that the employees should go to the front en masse were carried decisively. Petrograd proletarians provided an example of this. On 23 February, at a prearranged signal by factory whistles and warship sirens, workers and sailors in the capital went to assembly points and enrolled as volunteers in the Red Army. At the decision of the Executive Committee of the Petrograd Soviet, 23 February was declared to be Defense of the Socialist Fatherland Day.

Workers from Moscow and other industrial centers entered the ranks of the RKKA in increasing numbers, and there was also a substantial enlistment of peasants, especially in areas near the front. As Red Army units were formed, they were sent to the front and promptly joined battle with German troops who were armed to the teeth. In unequal skirmishes with the enemy, the Red Army men got their baptism of fire and acquired their first combat experience.

German troops were engaged in the Pskov and Narva sectors by the 1st, 2nd, and 4th Red Army regiments, the Bolshevik 12th Army, the Latvian Riflemen, and the 1st Revel'skiy Red Estonian Regiment, formed by V. E. Kingisepp. The strength of these units did not exceed 6,000 men. A Red Army detachment about 600 strong, organized by the Bolshevik Ya. F. Fabritsius, engaged in hostilities north of Pskov. Red Army detachments, together with Red Guard detachments, offered heroic resistance to the enemy, who was advancing northeast of Riga.

In the central sector the enemy was resisted by the Vitebsk, Orsha, and Mogilev detachments—which reported to Commander in Chief of the Western Front A. F. Myasnikov—as well as by detachments under the

command of R. I. Berzin. These forces had a strength of about 5,000 men. In the region between Bobruysk and Zhlobin, stiff resistance was offered by the 3rd Brigade of Latvian Riflemen under the command of I. I. Vatsetis. In the Ukraine, detachments led by P. V. Yegorov, R. F. Sivers, G. I. Chudnovskiy, V. I. Kikvidze, Yu. M. Kotsyubinskiy, and V. M. Primakov fought selflessly against the German troops and Petlura's forces. The Red Army men and Red Guards who fought there numbered about 35,000 in all."

In her struggle against counterrevolution and military intervention, Soviet Russia was not alone. She was supported by the workers of the entire world. The way the revolutionary movement caught on among foreign military personnel and civilians who happened to be in Russia was a vivid manifestation of their fraternal solidarity in the campaign for Soviet authority. The 1st International Battalion was formed in Petrograd toward the end of 1917. At one of its meetings, its personnel declared that they would mercilessly crush any attempt to overthrow Soviet authority.

Hungarian internationalists headed by Bela Kun and Erno Por fought selflessly against the German interventionists in engagements near Narva. German-backed Haydamak bands in the Ukraine were countered by a force consisting of Czechs, Slovaks, and the 1st Serbian Soviet Revolutionary Detachment.

In the engagements fought in February 1918, the interventionists were better equipped and better organized than the young Red Army. Nonetheless, the Red Army's stubborn resistance against an enemy armed to the teeth wrote an illustrious page in the history of the Armed Forces of the Soviet state. In this context, V. I. Lenin wrote that "the week of 18-24 February 1918 was one of the most important turning points in the history of the Russian, and international, revolution."

Vividly displayed in February 1918 were the indomitable will of the Soviet people, their determination to defend the gains of the socialist revolution at any cost, and their unprecedented steadfastness and valor in the armed conflict with imperialism. The Red Army men and the Red Guards, inspired by the thought of defending their socialist Fatherland, displayed incomparably greater moral fiber and political conviction than the interventionist troops, and they demonstrated a high level of revolutionary organization and discipline.

To mark the patriotic uplift and mass mobilization of workers in defense of their socialist Fatherland, and to commemorate the first heroic battles between the newly formed Red Army detachments and regular German troops, 23 February is celebrated annually as a national holiday, Soviet Army and Navy Day.

The first military successes of the Red Army played a huge role in the fate of the Land of the Soviets. The Kaiser's government failed to achieve its goals. Reluctant to wage a drawn-out war, it was obliged to call off its offensive and negotiate a cessation of hostilities. A peace treaty was signed on 3 March 1918 at Brest-Litovsk on terms that were onerous for our country but had to be accepted to save the gains of the revolution. Despite the opposition of the Trotskyites and the "left-wing communists," the treaty was approved by the 7th Congress of the RKP(b) and ratified by the 4th Extraordinary All-Russian Congress of Soviets. The party won a peaceful interlude, thus saving the Soviet republic.

The 7th Congress of the RKP(b) warned the party and the nation that further armed attacks on the Soviet republic by imperialism were inevitable. The congress called for the adoption of measures that would make the public better organized and, in particular, for universal instruction of the adult population in military affairs. The congress drew attention to the need for a massive, regular, strictly disciplined Red Army. Addressing the congress, V. I. Lenin said that "our one slogan must be to learn military affairs consummately. . . ."⁵⁵ The decisions of the 7th Congress of the RKP(b) constituted the starting point for the practical activity of all party and soviet organs and popular workers' organizations in mobilizing the country's material and spiritual resources to defend the socialist Fatherland. These decisions underlay the further growth of the Red Army and the formulation of its organizational structure.

To achieve centralized direction of military operations and command and control, the Council of People's Commissars created, on 4 March 1918, the Supreme Military Council. It consisted of a military director, M. D. Bonch-Bruyevich, and two political commissars. This council was entrusted with the direction of all military operations, and all military officials and institutions without exception were unconditionally subordinated to it.⁵⁶ The post of supreme commander was abolished.

On 15 March, the Supreme Military Council submitted a report to Council of People's Commissars Chairman V. I. Lenin on the further organizational development of the Soviet Armed Forces. The report called for an army 1,500,000 strong, consisting of units having standard tables of organization and equipment and a unified procedure for deployment. The report substantiated the need to make a transition from the voluntary system of recruiting to compulsory military service for the workers.⁵⁷

The report was approved in principle by V. I. Lenin. On 19 March 1918, the Council of People's Commissars expanded the membership of the Supreme Military Council. It now included the people's commissar for military affairs (chairman), the people's commissar for naval affairs, a representative of the Collegium of the People's Commissariat for Military

Affairs, two specialists in military affairs, and one specialist in naval affairs.

The Supreme Military Council's duties were defined in a resolution from the Council of People's Commissars stating that "the highest authority in matters of national defense is hereby vested in the Supreme Military Council, which is entrusted with the following functions:

(a) to convey to the War Department and the Naval Department broad national defense objectives;

(b) to convey to the defense departments the requirements for the organization of the Armed Forces (Army and Navy);

(c) to coordinate the activity of the Army and Navy, and to resolve all problems common to the War Department and the Naval Department;

(d) to monitor the performance of the defense departments in meeting their stated requirements; and

(e) to collect data systematically on all service personnel who, by virtue of their knowledge and combat experience, are potentially suitable for appointment to higher command posts."

In March 1918, it was decided to dissolve the Central Committee of the Baltic Fleet, to establish the post of chief commissar of the fleet, and to create fleet administrative organs. On 29 March, V. I. Lenin signed a statute on the administration of the Baltic Fleet. According to the new statute, the administration of the fleet was entrusted to the chief of naval forces and the chief commissar, who were selected by the Collegium of the People's Commissariat for Naval Affairs and were appointed by a decree from the Council of People's Commissars.

The consultative organs under the chief commissar and the chief of naval forces were the Council of Commissars and the Council of Flag Officers. The executive organ of the chief of naval forces was the fleet staff, headed by the chief of staff.

At V. I. Lenin's suggestion, the Central Committee of the RKP(b) convened a meeting on 25 March 1918 attended by representatives of the People's Commissariat for Military Affairs and the Moscow Military District, and by several military specialists. The agenda included the question of compulsory military service, the organizational structure of the Red Army, and the relationship between commanders and commissars." Concluding the meeting, V. I. Lenin said that the Central Committee of the party would consider the opinions expressed at the meeting when making its decisions.

On 30 April 1918, the Council of People's Commissars enacted a provisional statute on the Collegium of the People's Commissariat for Naval Affairs. In accordance with the statute, the collegium was entrusted with the direction of the Naval Department and was to ensure that the fleets were kept at authorized strength and in constant combat readiness. The people's commissar for naval affairs was made chairman of the collegium.

Radical changes took place in the central organs of the military administration. The decision was made on 8 May 1918 to form the All-Russian Main Staff, which became the highest executive military organ. It was responsible for creating and training Red Army units and formations and for issuing regulations, instructions, and tables of organization and equipment. Internal military districts and all local military administrative organs were subordinated to it.

The All-Russian Main Staff consisted of directorates for command personnel, mobilization, organization, operations, training establishments, military transport, and so on. With the advent of the All-Russian Main Staff, there was no longer a need for the All-Russian Collegium for the Formation of the Red Army, nor for administrative organs retained from the old army. As a result of the reorganization, direction of the organizational development of the Armed Forces was vested in a single organ.

The administrative organs for aviation and lighter-than-air units were strengthened considerably. In accordance with an order issued by the People's Commissariat for Military Affairs on 24 May 1918, the All-Russian Collegium for the Direction of the Air Force was replaced by the Main Administration of the Workers' and Peasants' Red Air Force. The latter was entrusted with forming and supplying air units and guiding the entire life and activity of their personnel. At the same time, the Moscow, Yaroslav, Ukrainian, and other district directorates for the Red Air Force were formed. These directorates set about reorganizing old aviation and lighter-than-air detachments and forming new Soviet replacements, taking steps to ensure that the necessary logistic support was forthcoming.

What was now needed was a local military apparatus closely linked with the local soviets and near to the working masses, the source of personnel for the Armed Forces. The military sections of the local soviets in many provinces and the staffs of the local soldiers' committees proved unequal to the demands of the military buildup.

Such a local military apparatus was introduced concomitantly with a new partitioning of the country into military districts with their own administrations. The reorganization plan was set forth in a report presented on 17 March 1918 to V. I. Lenin by the Supreme Military Council. The Council of People's Commissars under the chairmanship of V. I. Lenin, having debated this plan, approved it on 25 March 1918. On 31 March, the

Supreme Military Council defined a new system of military-district administration and announced the founding of the Yaroslav, Moscow, Orel, White Sea, Ural, and Volga military districts.⁴⁰ The West Siberian, Mid-Siberian, East Siberian, North Caucasian, and Turkestan military districts were founded on 4 May 1918 by another Council of People's Commissars decree.⁴¹ Eleven military districts were founded in all.

In deciding a border military district's size, the Supreme Military Council was guided by these considerations: that the territory must afford the troops and their rear services ample room to deploy; that it must be large enough to enable the troops to live off the land for extended periods; and that it should ideally be traversed by major railroads and highways. Internal military districts were regarded as state supply bases for the army in the field and for adjacent border military districts.

In accordance with an order issued by the Supreme Military Council on 31 March, all authority in a military district belonged to the military district council. A subordinate military district committee was formed to solve the most pressing problems. Besides the military district's supervisory personnel, the committee's membership included the chiefs of its directorates and delegates from the regional council. The function of a military district council was to form and train units and formations, to keep them in a state of constant combat readiness, and to supply the troops of the district with weapons and equipment. The military district councils reported directly to the people's commissar for military affairs and acted under his guidance.

A new system of local military administrative organs was introduced by a Council of People's Commissars decree dated 8 April 1918, which authorized the founding of commissariats for military affairs at various district and provincial levels and defined their organization and interrelations.⁴² These commissariats were created by the corresponding soviets, with the exception of those at the highest district level, which were created by the People's Commissariat for Military Affairs. The composition of smaller district military commissariats was subject to approval by the superior soviet (the provincial soviet or the district soviet). Each such commissariat was headed by a military commissar, who was an experienced military party worker appointed to the post by the Communist Party and the Soviet government.

The military commissariats had wider powers than the military sections of the soviets. They were entrusted with the registration and enrollment of citizens fit for military service, with forming and training military units, with the control of troops performing local missions, and with the logistic support of the Red Army.

The local military apparatus did extensive political work among the public. Its personnel enthusiastically explained to the working population the essence of the sociopolitical transformations realized by Soviet authority, the merits of the new social order and state regime, and the historic role and missions of the Red Army. All this inculcated in the broad masses of the workers a conscientious attitude toward the defense of their socialist Motherland and rallied them around the Communist Party and the Soviet government.

The contributions made by the local organs of military administration in military organizational and political work among the public were highly esteemed by the party and the government. V. I. Lenin noted subsequently that "without the military commissariats we would have had no Red Army."⁴ And no matter what changes the military commissariats underwent later, their role in the creation of the Soviet Armed Forces remains huge.

Since the first days of the regular Soviet Armed Forces, three basic components could be distinctly discerned in their overall organizational structure: the Workers' and Peasants' Red Army; the Workers' and Peasants' Red Navy; and the special purpose troops, consisting of the Border Troops and Internal Security Troops. The organization and equipping for each of these were determined by their sociopolitical functions, by their roles and places in an armed conflict, and by the characteristics of their employment in combat.

The main burden of the armed conflict with internal counterrevolution and military intervention was borne by the newly created Workers' and Peasants' Red Army. The Communist Party and the Soviet government accorded top priority to increasing the Army's fighting strength, which depended not only on its materiel and on the efficiency and morale of its men but also on its organization for combat. The beginning of the Civil War showed that the Red Army's effectiveness was not infrequently impaired by the lack of an overall formal organization. The detachments recruited on a voluntary basis were diverse in numerical strength and armament, which made troop management difficult.

Foremost in the Workers' and Peasants' Red Army were its ground forces. They consisted of infantry, artillery, and technical units.

The Red Army's combined arms formation was the rifle division. According to a plan prepared by the Supreme Military Council in March 1918, 58 such divisions were to be formed—28 of them in border military districts and 30 in internal military districts. These divisions were to be united into ten armies.

The tables of organization and equipment* promulgated by the People's Commissariat for Military Affairs in April 1918 called for a rifle division of three brigades with three regiments in each, a regiment of three battalions with three companies in each, and a company of three platoons with three sections in each. The rifle division included a three-troop cavalry regiment with a mounted machine gun team, a signal team, a supply team, and a regimental school."

The rifle division had artillery consisting of three light battalions, a howitzer battalion, a heavy artillery battalion, and two air defense batteries. In all, 68 artillery pieces were authorized." Also proposed was an engineer battalion consisting of three engineer companies, a searchlight company, a technical company, a mine and demolition section, a road section, and a bridge section. The engineer contingent of a rifle regiment was transformed into an engineer company of four platoons with four sections in each.

Also authorized for the rifle division was a signal battalion consisting of a telephone and telegraph company, a reconnaissance company, a motor transport section, and other units. In addition to field telephone facilities, the battalion was to have 5 field radios, 8 cars, 10 trucks, 34 motorcycles, 52 bicycles, and a substantial amount of animal-drawn transport."

The strength of the rifle division was 26,972 men.

The first tables of organization and equipment were of immense practical importance. They provided a basis for troop organization, ensured the most advantageous distribution of human and material resources, and created favorable conditions for development of the RKKA's branches.

At the outset, there was only organic artillery, but April 1918 saw the coming of special purpose artillery, which in that instance was the High Command's reserve. Organs for centralized fire control were set up, as was a unified system for supplying artillery units with ordnance.

Much attention was paid to building up the armored forces of the republic. Armored car units were formed from the old army's armored car battalions and armored trains. The buildup of armored forces was accomplished under the immediate direction of the Armored Units Council and its executive committee. The members of the council and its executive

*The draft tables of organization and equipment were prepared in March 1918 by the All-Russian Collegium for organizing the Workers' and Peasants' Red Army. They had been discussed by representatives of the top military administration at a conference convened by the Supreme Military Council on 22-23 February 1918. After the tables were promulgated, only military commissariats at the district, provincial, and certain lower district levels were allowed to form Red Army units. At places where there was no such commissariat, the military section of the local soviet was authorized to do so.

committee were elected in December 1917 at the 2nd All-Russian Congress of Armored Unit Representatives. In accordance with a People's Commissariat for Military Affairs order dated 13 February 1918, the Armored Units Council was entrusted with the direction of all armored forces of the republic. The council was made responsible for the demobilization and reorganization of all armored car units and for their formation and allocation throughout the active fronts.

The Workers' and Peasants' Red Air Force was founded during the first days of Soviet authority. As early as 10 November 1917, the 1st Socialist Aviation Detachment, intended for use against counterrevolutionary troops, was formed in Petrograd in accordance with the instructions of V. I. Lenin. By the end of 1917, the Petrograd Military District had 6 aviation detachments with 12 aircraft in each, and Moscow had a 3-squadron detachment. Aviation detachments were also formed in Yaroslavl', Serpukhov, and the Urals.

On 11 March 1918, the commander in chief of the Western Front issued an order requiring existing air units to be brought up to authorized strength and calling for new ones to be formed. By the end of April, there were ten Soviet air detachments on that front.

In the spring of 1918, steps were taken to strengthen the Red Air Force organizationally. On 15 May, the Supreme Military Council introduced new tables of organization and equipment which included an aviation group consisting of two detachments. In each such group there were 12 aircraft. An aviation group was subordinate to the rifle division to which it was attached.

Specialized combat employment of aviation was begun. Besides reconnaissance and fighter detachments for service at the fronts, the first fighter detachments were formed for the air defense of large industrial targets. Naval aviation also came into being.

The organizational development of the Red Air Force was beset by great difficulties. They were due to the backwardness of the Soviet aircraft industry and to the acute shortage of aircraft technology and of pilot cadres dedicated to the revolution.

With the onset of military intervention against the Soviet republic, the situation in the Baltic Sea and the Black Sea deteriorated severely. German troops seized key bases and ports such as Revel', Odessa, Nikolayev, and Kherson. The basing zone of the republic's fleets was thus reduced. Moreover, according to the Treaty of Brest-Litovsk, any combat action whatever by our navy was prohibited.

The Soviet government took steps to ensure that the warships in the Baltic Sea and the Black Sea were not seized by Kaiser Germany. At the bidding of V. I. Lenin, the bulk of the Baltic Fleet, which was then lying at its main base, Helsingfors, was moved to Kronshtadt between 22 February and 22 April 1918, as were warships normally based at Revel'. On 6 April the Council of People's Commissars, under the chairmanship of V. I. Lenin, discussed what could be done to save the ships still in Finnish ports. About 40 more vessels arrived in Kronshtadt during April and May. Under exceptionally complex and arduous conditions, the Baltic Fleet sailors who participated in the heroic "Ice Cruise" rescued for the Soviet republic more than 250 warships and auxiliary vessels, which later played a huge role in combat actions in the Baltic Sea.

The Kaiser's troops also mounted an offensive in South Russia and Transcaucasia. When Simferopol' fell, the German command issued an ultimatum demanding the surrender of the Black Sea Fleet, whose main forces were lying in Sevastopol' at the time. At the bidding of the Council of People's Commissars of the RSFSR,* some of the more battleworthy warships proceeded to Novorossiysk.

On 11 June 1918, the Germans demanded categorically that these warships return to Sevastopol' by 20 June. When all options for saving the Black Sea Squadron were exhausted, its ships were scuttled in Novorossiysk Bay under V. I. Lenin's orders.

With the onset of aggression by the Entente at the country's northern, southeastern, and Pacific borders, the Soviet government took all possible steps to strengthen the naval flotillas in these regions. V. I. Lenin gave instructions on the defense of Murmansk and Arkhangel'sk, recommending that the estuary of the Severnaya Dvina be mined if the Entente's fleet posed a threat in that sector. In accordance with a directive from the Council of People's Commissars, appropriations were made for reinforcement of the Amur River Flotilla, while action was taken to transfer warships and naval armament stores to the Caspian Sea.

At first, there were no significant changes in the grouping of naval vessels for tactical purposes. The basic formations assumed by surface ships and submarines were the brigade, the squadron, and the independent division. A brigade of battleships and cruisers consisted, as a rule, of 3 to 4 warships of the same type. Submarines, destroyers, torpedo boats, escort vessels, and minesweepers were united into homogeneous squadrons of several divisions; minelayers, netlayers, and gunboats, into detachments; and transports, into detachments or flotillas. Naval aviation was originally

*[RSFSR—*Rossiyskaya Sotsialisticheskaya Federativnaya Sovetskaya Respublika* 'Russian Socialist Federal Soviet Republic'—U.S. Ed.]

made up of air divisions with two brigades in each, but at the beginning of 1918 it was reorganized into brigades, and later into detachments.

The numerical strength of naval personnel serving afloat and in onshore units had been reduced considerably by the demobilization of the old navy and by the departure of many sailors for the active fronts. The former battle bills and the previous schemes of complement for naval units, formations, and task forces had been rendered untenable by the dearth of personnel, materiel, and logistic support.

At the beginning of 1918, a reduction in the complement of the central naval administration was begun. Conducted concurrently was a review of fleet complements, that of the Baltic Fleet first. Action was taken to delete from its lists many onshore units and naval establishments that had virtually been disbanded when it redeployed from Helsingfors, Revel', and other bases. According to the Baltic Fleet's master plan that went into effect in February 1918, its warships were divided into three categories: those in commission, those in the armed reserve, and those in the inactive reserve.

This reorganization was instrumental in making the Workers' and Peasants' Red Navy into an extremely important component of the Soviet Armed Forces.

While the Red Army and Navy were being reorganized, the special purpose forces—the Border Troops and Internal Security Troops—underwent intensive development.

The Soviet state had to found its Border Troops under the adverse conditions of the Civil War and military intervention. The former units of the independent Border Guard Corps were demobilized soon after the Great October Socialist Revolution. However, the corps' administration was partially preserved in the People's Commissariat for Finance. On 30 March 1918, the Border Guard Administration was formed from that administration within the People's Commissariat for Finance.

Border security was organized in the North, along the White Sea coastline, southward along the Finnish and Estonian borders, and finally along the shore of Lake Chudskoye as far as Gdov. By the middle of May 1918, five border regions had been established: the White Sea, Olonets, Finland, Petrograd, and Chudskoye regions. Each of them was subdivided into three subregions with the necessary number of border intervals and outposts.⁴⁷

On 28 May 1918, V. I. Lenin signed a decree instituting the Border Troops, whose duty it was "to protect the interests of the Russian *Socialist* Federal Soviet Republic at the state border, and, within the confines of the border zone, to protect the person and the property of each Soviet

citizen. . . ."⁴⁸ The decree defined the procedure for guarding the state border.

The Border Troops were manned by volunteers. They, like the Red Army men, were provided with arms, subsistence, quarters, and medical care at public expense.

Concerning the fierce opposition of public servants to measures introduced by Soviet authority, V. I. Lenin raised the question of combating internal counterrevolution at a meeting of the Council of People's Commissars held on 19 December 1917. F. E. Dzerzhinskiy was entrusted with selecting the members for a commission charged with finding ways to combat sabotage. His report was heard by the Council of People's Commissars on 20 December. At that meeting, the Council of People's Commissars authorized the formation of the All-Russian Extraordinary Commission for Combating Counterrevolution and Sabotage. F. E. Dzerzhinskiy was appointed its chairman. The commission was required "to seek out and eliminate all attempts at, and acts of, counterrevolution and sabotage throughout all Russia, no matter who might be their perpetrators."⁴⁹

To defend and guard the gains of the Great October, and to thwart the disruptive activity of counterrevolution, detachments of Red Guards, revolutionary sailors, and progressive workers were formed, and these detachments became the backbone of the commission's armed force. Various types of security forces, such as armed escorts, the provisions army, and other auxiliary troops, were created and subordinated to various departments (of the People's Commissariats for Communications, Provisions, Justice, and so on).⁵⁰

Thus, being a historically inevitable stage in the process of organizational development, the period when the Soviet Armed Forces were manned on a voluntary basis produced a number of units and formations that withstood the first blows of the interventionists and White Guards with honor, thereby defending the revolutionary gains of the nation. The foundations were laid for the organizational development of a regular army many millions strong.

3. The Growth of Political Work Among the Troops. Building Up Army Cadres

The presence within the Armed Forces of a party-political apparatus that actively promoted the party's policy was an important factor in the former's organizational development and buildup, and contributed greatly to the triumphs over the enemy.

The creation and strengthening of the party-political apparatus in the Red Army was a result of the Communist Party's position as the guiding and directing force in the various organs of state authority; the need to make the Red Army into a bulwark of Soviet authority; and the huge role played by party-political work in inculcating service personnel with a high level of morale, political consciousness, and fighting qualities.

The military commissars became the first organizers and supervisors of party-political work in the Red Army. The institution of the military commissar was introduced in March-April 1918 to implement party policy in the military, to exercise political control over military specialists, and to direct party organizations and all party-political work.

The first statute on military commissars, published on 6 April 1918, contained the following passage: "The military commissar is the immediate political representative of Soviet authority in the Armed Forces. The post of military commissar is of paramount importance, and is open only to revolutionaries who are above reproach and can be counted on to remain the incarnation of revolutionary duty even in the most trying circumstances."¹

The All-Russian Bureau for Military Commissars, which was founded on 8 April under the People's Commissariat for Military Affairs, was instrumental in strengthening the institution of the military commissar. This bureau directed and regulated their activities. Within the bureau there was a section for agitation and education to direct political indoctrination work in the Red Army. Similar sections were formed in military commissariats at provincial and certain district levels. These were the first steps toward the creation of a system of political organs in the Soviet Armed Forces.

Exercising control over the activity of the Red Army's incoming military specialists was by no means the only problem facing the military commissar. Still less was it his main problem. Military commissars were appointed to serve even with commanders whose dedication to the revolution was unquestioned. The military commissar firmly carried out party and government policy in the Red Army. He studied the enlisted men, inculcating in them dedication to the socialist revolution, patriotism, proletarian internationalism, and other high moral-political qualities. The military commissar delved into all aspects of the combat and administrative activity of his unit and of the lives and daily activities of the Red Army men and their officers. The military commissar had to do most of the work in the political indoctrination of the Red Army's personnel.

Bolshevik organizations, working together with the military commissars and under their guidance, played an important role in the creation and consolidation of the new army. At first, party-political work in the

military was done by the local party committees and by cadres of skilled party workers sent by the Central Committee. So it was that as soon as the decree founding the Red Army was promulgated, the All-Russian Collegium for its formation began to select, train, and appoint agitators and organizers, drawing on the pool of party members. These agitators and organizers were to reveal the destiny of the socialist army to the working public and call for them to enter its ranks.

Teams of party workers arose in regiments and divisions, and afloat. At first, they guided the activity of soldiers' and sailors' committees and monitored the administrative activity of command elements. This was an unavoidable stage in the party's organizational development for the following reasons: the former detachment system still persisted; officers were appointed by election; there was no centralized military administration; and there were repeated attempts by counterrevolution to build anti-Soviet nests in the Red Army units and formations manned on a voluntary basis.

Under the direction of the party's Central Committee, the military commissars and Bolshevik organizations conducted a large-scale political indoctrination program among the troops. They conveyed to the bulk of soldiers and sailors Lenin's ideas on the essence and missions of Soviet authority and the defense of the socialist Fatherland. They explained the appeals and decrees of the Soviet government. Various methods of mass agitation were used for this purpose, including newspapers, leaflets, discussion groups, and mass meetings.

In the political work among the soldiers and sailors, special attention was paid to the role and importance of the alliance between workers and peasants and to the friendship and mutual understanding between the various nationalities of Soviet Russia. For example, a conference was convened by Ya. M. Sverdlov in April 1918 to discuss the initiation of agitational work in the Red Army and among the local population. The conference proposed the founding of the All-Russian Agitational Bureau for the Red Army under the All-Russian Central Executive Committee and defined its main missions."

A powerful patriotic stimulus for Red Army personnel was the wording of the solemn promise ratified by the All-Russian Central Executive Committee of Soviets on 22 April 1918. In part, it required of a serviceman the following avowal: ". . . I undertake, at the first call of the Workers' and Peasants' Government, to defend the Soviet republic from the dangers and encroachments of all her enemies, sparing neither my strength nor my life in the struggle for the Russian Soviet Republic, and for socialism and fraternity among peoples. . . ." This consciousness of a high military duty inspired Red Army and Red Navy men with exalted and noble goals,

rallied them around the Communist Party, multiplied their efforts in combat, and engendered mass heroism.

From the first months of the Red Army's existence, the political indoctrination of its men was coordinated with their instruction in military affairs. "The Red Army is certainly splendid combat material. However, it is raw material, unprocessed raw material," noted V. I. Lenin. "In order that it shall not serve as fodder for German guns, it must be trained and disciplined."³⁴ This was a task of no ordinary complexity due to the low educational level of the soldiers and sailors, most of whom were illiterate. Difficulties were also caused by the heterogeneity of personnel in military training and combat experience. Serving side by side with World War I veterans were Red Guards who sometimes lacked the most elementary knowledge of, and experience in, military affairs.

While the Red Army was being manned on a voluntary basis, systematic instruction of its men in military affairs did not seem possible, but the first steps were made in this direction. The old army's regulations, manuals, and instructional aids were revised, with consideration of the features of the Red Army and its revolutionary goals. In March 1918, the section of the All-Russian Collegium for the Formation of the Red Army responsible for troop training prepared a training program for infantry units. The old drill regulations, artillery regulations, and field service regulations were all rewritten, as was the manual on demolition tactics and techniques.

Success in solving the problems of organizational development in the Soviet Armed Forces was closely associated by the party with the problem of the command cadres, who had to become the backbone of the new army and its organizing and binding force. V. I. Lenin emphasized on more than one occasion that it would be impossible to create a socialist army or to conduct its combat training and political indoctrination effectively without trustworthy, well-trained command personnel who had demonstrated proper class behavior.

The party worked out ways of producing such an officer corps as early as the voluntary enrollment period. Party members with a knowledge of military affairs were promoted boldly to fill command positions, and formal officer training was begun through a system of military courses and schools.

At the outset, those regarded as eligible for top command appointments were workers with the party or at the forefront of labor whose combat experience was acquired with the Red Guards, as well as party members who had been politically active in the old army before the revolution. Many such men were appointed to command fronts, military districts, units, and formations. Positions of command were conferred on sailors, soldiers, and noncommissioned officers known to be devoted to the people.

At the same time, a system of officer training courses, military schools, and academies was formed. The first Soviet military educational institution was the 1st Moscow Revolutionary Machine Gun School, which was founded in December 1917 at V. I. Lenin's bidding. Most of its officer candidates were party members. An order from the People's Commissariat for Military Affairs in February 1918 announced the inception of courses for Red Army officers.⁵⁵ Another order issued during the same month proclaimed the opening of 13 courses in Petrograd, Moscow, Tver', Kazan', and Oranienbaum, instituted to train commanders for infantry, cavalry, artillery, and engineer troops.⁵⁶

The training of Red military pilots and other Red Air Force specialists was begun at aviation schools at Moscow, Gatchina, and elsewhere. As a rule, workers and peasants were enrolled for the courses. The percentage of party members among the trainees was substantial: 20 to 40 percent of them belonged to the RKP(b).

While training command cadres recruited from the working classes, the party proceeded to enlist the services of specialists from the old army on a large scale. Steps were taken to retain in the military those tsarist officers loyally disposed toward Soviet authority. For example, along with the declaration of general demobilization, the people's commissar for military affairs issued an order on 27 December 1917 that an officer performing staff duties or serving in a military directorate or establishment was to be released only when he could be relieved by a properly qualified person without detriment to the performance of his function.⁵⁷ A People's Commissariat for Military Affairs order dated 2 January 1918 extended this condition to the release of enlisted men performing duties that required special knowledge or skills.⁵⁸

In February 1918, the Communist Party and the Soviet government appealed to every citizen of the republic who had special military expertise or combat experience, and who was committed to the cause of the socialist revolution, to join the Red Army as an instructor. Many private soldiers, noncommissioned officers, and officers of the old army responded to this appeal.⁵⁹

The implementation of Lenin's directions on the employment of specialists from the old army was accompanied by bitter disputes. Trotsky's supporters wanted to substitute military specialists as an answer to the problem of making officers out of working-class recruits. The "left-wing communists," posing as superrevolutionaries, objected to the employment of ex-officers. V. I. Lenin and the party's Central Committee, having shown both of these positions to be untenable, firmly pursued a policy based on the premise that to be militarily viable, the Red Army had to have its own command personnel as well as specialists and officers from the old army. This policy found favor and was vigorously supported in the

field. The result of this was that on 27 March 1918 the People's Commissariat for Military Affairs and the Supreme Military Council announced widespread enrollment of military specialists into the RKKA for duty as consultants, army instructors, and military instructors in civilian institutions.⁶⁰

Many officers of the old army, some of them generals, joined the Red Army voluntarily, serving the nation honorably and with distinction. Later, assessing the role of military specialists in the organizational development of the regular Red Army, V. I. Lenin wrote that "had we not taken them into the service, and had we not made them serve us, we could never have created an army."⁶¹

To increase the Red Army's fighting strength, changes had to be made in its command and control organization and in the procedure for filling vacancies in the command structure. The appointment of officers and of soldiers' committee members by election, which had played its part in liberating the old army from the yoke of a reactionary officer corps, now tended, under the changed conditions, to retard the organizational development of a regular, highly disciplined Red Army. Aware of this situation, the All-Russian Central Executive Committee issued a decree dated 22 April 1918 introducing a new procedure for filling vacancies in the command structure of the RKKA. With the enactment of this statute, the appointment of officers by election was effectively abolished.

Section commanders were appointed by the company commander. Platoon leader vacancies were filled in accordance with a list of candidates compiled by the local commissariat for military affairs and published in the local Soviet press not less than five days before the appointment. Platoon leaders thus appointed were subject to a 6-week probationary period. A similar procedure was used to fill company commander and battalion commander vacancies in newly formed units. The commanders of independent units and brigades were appointed from a list of candidates by the People's Commissariat for Military Affairs with the approval of the Supreme Military Council. Division commanders and above were appointed by the People's Commissariat for Military Affairs with the approval of the Supreme Military Council, the appointment being brought to the attention of the Council of People's Commissars in each instance. Appointment by election was retained only for the members of administrative councils of independent units and for regimental quartermasters, stable sergeants, bakers, company quartermasters, and certain collective craftsmen and workers.⁶²

Thus, the Communist Party and the Soviet government made a great effort to ensure that the Red Army was politically indoctrinated and well supplied with commanders. Action was taken to institute the military commissar, to revoke the principle of officer appointment by election, and to

abolish the soldiers' committees. The effect of these measures was to improve discipline, the authority of officers, and the combat efficiency of the Red Army.

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The formation of the Armed Forces of the Soviet republic, and their initial organizational development on a voluntary basis, confirmed the correctness of Marxist-Leninist teaching that the old bourgeois army would have to be dismantled in the course of the socialist revolution and replaced by a new type of army to defend the gains of the proletariat and of all working people. The Communist Party, headed by V. I. Lenin, counting on the creative initiative of the masses, defined the goals, methods, forms, and basic principles for the organizational development of the Red Army and took direct charge of building it and indoctrinating its personnel.

The Red Army had to be manned by volunteers at the outset due to domestic conditions and the international situation. During this period the Red Army's first regular units and formations were fielded. They entered a fierce struggle with internal counterrevolution and foreign intervention, and laid the foundation for the development and organization of a massive, professional Red Army. The first steps were made toward a unified organizational structure for troop units and formations, and toward the establishment of the various services and branches of the Armed Forces. Work was begun on such problems as recruitment, the conditions of service, the training of military cadres, and the creation of organs of military and political leadership in the capital and in the provinces. The stage was set for the transition to compulsory service.

Notes

1. Lenin, XXXVIII, 139.
2. Lenin, XXXVI, 342.
3. *50 let Vooruzhennykh Sil SSSR* [Fifty Years of the Armed Forces of the USSR] (Moscow, 1968), p. 17. [Hereafter cited as *Fifty Years of the Armed Forces*—U.S. Ed.]
4. Lenin, XXXVII, 295.
5. *Dekrety Sovetskoy vlasti* [Decrees Issued by Soviet Power] (Moscow, 1957), I, 130-31. [Hereafter cited as *Soviet Decrees*—U.S. Ed.]
6. *Soviet Decrees*, I, 21.
7. *Ibid.*, 243.
8. *Ibid.*, 244-45.
9. See Lenin, XXXVI, 13, 14.
10. *Soviet Decrees*, I, 66.
11. *Tsentrallyy gosudarstvennyy arkhiv Sovetskoy Armii* [Central State Archives of the Soviet Army], f. 1, op. 1, d. 5, l. 14. [Hereafter cited as *Army Archives*—U.S. Ed.] [The preceding abbreviations are Soviet archival designations: f., fond; op., inventory; d., item; l., folio. The Russian word *fond* is retained because the concept has no exact English equivalent. Hereafter in this work the Russian abbreviations will be used for such references—U.S. Ed.]

12. Lenin, XXXV, 269.
13. Lenin, XXXVIII, 137, 138.
14. *Voyenno-istoricheskii zhurnal* [Journal of Military History], 1968, No. 1, p. 17. [Hereafter cited as *Journal of Military History*—U.S. Ed.]
15. *Voprosy istorii* [Problems of History], 1968, No. 2, p. 7. [Hereafter cited as *Problems of History*—U.S. Ed.]
16. See Lenin, XXXV, 179-80.
17. See Lenin, XXXV, 181.
18. Lenin, XXXV, 224.
19. Yu. I. Korablev, *V. I. Lenin i sozdaniye Krasnoy Armii* [V. I. Lenin and the Creation of the Red Army] (Moscow, 1970), p. 182. [Hereafter cited as Korablev—U.S. Ed.]
20. *Armia i flot rabochey i krest'yanskoy Rossii* [The Army and Navy of Workers' and Peasants' Russia], 18 Jan. 1918.
21. Lenin, XXXV, 216.
22. Lenin, XXXV, 222.
23. *Soviet Decrees*, I, 352, 355.
24. Lenin, XXXVII, 76.
25. *Soviet Decrees*, I, 435.
26. *Tsentrallyy gosudarstvennyy voyenno-istoricheskii arkhiv* [(Central State Military History Archives), f. 2003, d. 39, l. 376-80. [Hereafter cited as *Military History Archives*—U.S. Ed.]
27. *Baltiyskiye moryaki v bor'be za vlast' Sovetov (noyabr' 1917-dekabr' 1918)*. [Baltic Fleet Sailors in the Struggle for Soviet Power (November 1917-December 1918)] (Leningrad, 1968), p. 72.
28. Lenin, XXXVI, 359.
29. N. I. Shatagin, *Organizatsiya i stroitel'stvo Sovetskoy Armii v period inostrannoy voyennoy interventsii i grazhdanskoy voyny (1918-1920 gg)*. [Organization and Development of the Soviet Army During the Period of Foreign Military Intervention and Civil War (1918-20)] (Moscow, 1954), p. 130. [Hereafter cited as Shatagin—U.S. Ed.]
30. *Istoriya Voyenno-vozdushnykh sil Sovetskoy Armii* [History of the Soviet Army Air Force] (Moscow, 1954), p. 159. [Hereafter cited as *SAF History*—U.S. Ed.]
31. Lenin, XXXV, 357.
32. *Pravda*, 22 Feb. 1918.
33. Korablev, pp. 207-8.
34. Lenin, XXXV, 393.
35. Lenin, XXXVI, 26.
36. *Soviet Decrees*, I, 522-23.
37. *Army Archives*, f. 1, op. 1, d. 118, l. 5.
38. *Soviet Decrees*, II, 570.
39. *Lenin i Krasnaya Armia* [Lenin and the Red Army] (Moscow, 1958), p. 38.
40. *Army Archives*, f. 11, op. 5, d. 400, l. 44.
41. *Sobraniye zakonov i rasporyazheniy Rabochego i Krest'yanskogo pravitel'stva* [Collection of Statutes and Instructions of the Workers' and Peasants' Government], 1918, No. 37, Article 491. [Hereafter cited as *Collection of Statutes*—U.S. Ed.]
42. *Soviet Decrees*, II, 63-70.
43. Lenin, XLI, 148.
44. *Army Archives*, f. 1, op. 1, d. 92, l. 140-43.
45. V. I. Kazakov, *Rol' artillerii v zashchite sotsialisticheskoy Rodiny* [The Role of Artillery in the Defense of the Socialist Motherland] (Moscow, 1959), pp. 9-12.
46. *Voyennyye svyazisty v dni voyny i mira* [Military Communications Personnel in War-time and Peacetime] (Moscow, 1968), p. 39.
47. *Iz istorii voysk VChK i pogranichnoy okhrany. Dokumenty i materialy. 1917-1921*. [From the History of the VChK Troops and the Border Guards: Documents and Materials 1917-21] (Moscow, 1958), pp. 309-10.
48. *Soviet Decrees*, II, 330-31.
49. *Vnutrenniye voyska Sovetskoy respubliki. 1917-1922. Dokumenty i materialy* [Internal

- Troops of the Soviet Republic 1917-22: Documents and Materials] (Moscow, 1972), p. 26. [Hereafter cited as *Internal Troops of the Soviet Republic*—U.S. Ed.]
50. *Tsentral'nyy gosudarstvennyy arkhiv Oktyabr'skoy revolyutsii, vysshih organov gosudarstvennoy vlasti i organov gosudarstvennogo upravleniya SSSR* [Central State Archives of the October Revolution, Top Organs of State Power, and State Administrative Organs of the USSR], f. 130, op. 2, d. 1, l. 24-25. [Hereafter cited as *October Revolution Archives*—U.S. Ed.]
 51. *Izvestiya*, 6 April 1918.
 52. *Partiynno-politicheskaya rabota v Vooruzhennykh Silakh SSSR. 1918-1973. Istoricheskiy ocherk* [Party-Political Work in the Armed Forces of the USSR 1918-73: A Historical Outline] (Moscow, 1974), pp. 52-53. [Hereafter cited as *Party-Political Work in the Soviet Armed Forces*—U.S. Ed.]
 53. *Soviet Decrees*, II, 157.
 54. Lenin, XXXV, 409.
 55. *Collection of Statutes*, 1918, No. 21, Article 317.
 56. *Iz istorii grazhdanskoy voyny v SSSR. Sbornik dokumentov i materialov. 1918-1922*. [From the History of the Civil War in the USSR: Collected Documents and Materials 1918-22] (Moscow, 1960), I, 111-13. [Hereafter cited as *From the History of the Civil War*—U.S. Ed.]
 57. *Army Archives*, f. 1, op. 1, d. 5, l. 26.
 58. *Army Archives*, f. 3, op. 1, d. 49, l. 202-3.
 59. *V. I. Lenin i Sovetskiye Vooruzhennyye sily* [V. I. Lenin and the Soviet Armed Forces] (Moscow, 1969), p. 250.
 60. *Rabochaya i Krest'yanskaya Krasnaya Armiya i Flot* [The Workers' and Peasants' Red Army and Navy], 27 Mar. 1918.
 61. Lenin, XXXIX, 313.
 62. *Soviet Decrees*, II, 154-55.

Chapter 2. The Transition to the Organizational Development of the Armed Forces on the Basis of Compulsory Military Service

(May 1918-February 1919)

1. The Beginning of the Organizational Development of a Regular Army

In the spring of 1918, the Soviet republic's domestic and international conditions deteriorated severely. The offensive mounted by the Kaiser's troops was promptly followed by the intervention of the Entente countries. Intervention began in the first days of March with an Anglo-French invasion in the North, the goal being to occupy the Murmansk Territory and then strike at Petrograd and Moscow.

A conference was convened in London in mid-March. It was attended by Britain's prime minister and foreign secretary, and their French and Italian counterparts. Agreed upon at this conference was a plan for "allied intervention in Eastern Russia," with the understanding that Japan's cooperation would be sought. British and Japanese troops landed in Vladivostok at the beginning of April.

The mutiny of the Czechoslovak Corps in May 1918 served as the signal for a widespread, coordinated emergence of anti-Soviet forces. Formed during World War I from Czech and Slovak prisoners, the Czechoslovak Corps had been granted permission by the Soviet government to proceed to Europe through Siberia and the Far East. Deluded by counterrevolutionary officers, its soldiers began to contest Soviet authority along the way. Acting jointly with the White Guards, the mutineers soon seized the Volga and Ural areas and a substantial part of Siberia. Meanwhile, the White Guard and White Cossack armies of Generals Denikin, Alekseyev, and Krasnov were active in North Caucasia and on the Don. Concurrently, the British interventionists invaded Transcaucasia and Central Asia.

The onslaught of the interventionists and White Guards merged with counterrevolutionary revolts by remnants of the bourgeois parties, kulaks, Socialist Revolutionaries, and sundry anti-Soviet rabble. Using their own forces and those of internal counterrevolution, the imperialists encircled the Soviet republic with a ring of fronts and embroiled her in a rigorous, bloody war. Alluding to it later, V. I. Lenin emphasized that "worldwide imperialism caused us to have what was for all practical purposes a civil war, and is to blame for making it a long, drawn-out one. . . ."

By the summer of 1918, approximately 700,000 White Guards and foreign interventionists were on active service against the Soviet republic. These were well-armed and well-trained regular troops, led by experienced generals and officers.

The Red Army was manned by somewhat more than 300,000 volunteers, of whom only 199,000 were armed. The voluntary method of manning could not support the recruitment of a massive army or regularly make good the attrition of its ranks. The heterogeneity of formations and the unlimited collegiality in command and control became quite incompatible with the demands of an armed conflict constantly growing in scale and complexity. A new approach was needed to organizational development: the creation of a massive regular army capable of defending the Soviet republic.

The Communist Party and the Soviet government dealt successfully with this problem, accomplishing the transition from an army manned by volunteers to massive regular Armed Forces through universal mobilization of workers and poor peasants. On the organizational side, the party and government prepared for the transition by creating numerous military commissariats; by forming military districts; by founding the All-Russian Main Staff; and by revoking the principle of officer appointment by election, substituting a system in which military commanders at all levels were appointed by organs of Soviet authority.

Of great importance for the organizational development of a massive army was the decree "On Compulsory Training in the Art of War" issued by the All-Russian Central Executive Committee on 22 April. It obliged all citizens of both sexes between the ages of 18 and 40 to undergo training in military affairs at their place of work. Those who underwent such training were registered as persons liable for call-up and, when the need arose, were recruited into the Red Army. The direction of universal military training was entrusted to the Main Administration for Military Educational Institutions and to its subordinate section for universal military training, while military commissariats were responsible for its local implementation. Later, the Main Administration for Universal Military Training was founded under the All-Russian Main Staff.

The first legislative act reflecting the transition to a new phase in the organizational development of the Soviet Armed Forces was an All-Russian Central Executive Committee resolution dated 29 May 1918. This concerned compulsory recruitment into the Workers' and Peasants' Red Army. The resolution stated that the transition from an army manned by volunteers to universal mobilization of workers and poor peasants was dictated by the overall situation of the country and was needed to repulse brazen domestic and foreign counterrevolution. The People's Commissariat for Military Affairs was to prepare a mobilization plan, giving priority to the proletarian centers Moscow and Leningrad and to the most threatened regions.²

On 1 June 1918, the Central Committee of the RKP(b) issued a proclamation calling upon workers and peasants to contribute a worthy addition to the strength of the Armed Forces. It explained to the people: "Volunteer regiments have proven inadequate. Compulsory military service must be put into effect. In the name of the struggle for bread, land, freedom, and socialism, workers and peasants—to arms!"

The party's decision to build a massive regular army through universal military service was approved and consolidated in legislation by the 5th All-Russian Congress of Soviets in July 1918. The Constitution (Fundamental Law) of the RSFSR enacted by the congress pronounced the defense of the socialist Fatherland the duty of every citizen of the republic and instituted universal military service. Article 19 of the Constitution stated that "the honor of defending the revolution, arms in hand, is conferred only on the workers; those not engaged in labor are obliged to perform other military duties."⁴

The Constitution's clause on universal military service underlay the congress's resolution on organization of the Red Army. This resolution called for the creation of a strong revolutionary army capable of crushing bourgeois-landowner counterrevolution and of repulsing the onslaught of the imperialist plunderers. Specifically, the congress declared the following: "Haphazard detachments and formations, arbitrary and amateurish organizational development must become a thing of the past. Henceforth, all forces must be marshaled in strict conformity with authorized tables of organization and equipment and in accordance with the dispensations of the All-Russian Main Staff. The Workers' and Peasants' Red Army must be built in such a way as to produce the greatest effect with the least outlay of men and equipment, which can only be achieved by planned application of all branches of military science as modified by the experience of the present war."⁵

The congress considered the following factors to be of paramount importance to successfully build a massive army: unwavering implementation of universal military training for workers; systematic centralization of

military command; strict accounting for and planned distribution of military property; the presence of qualified and dedicated command cadres; and the increase of the ideological and organizational roles of the military commissar and the party cell. The congress attached special importance to strengthening military discipline. "The Workers' and Peasants' Red Army must be built on iron revolutionary discipline. The citizen who has received arms from Soviet authority to protect the interests of the working masses is obliged to obey without question the requests and orders of commanders appointed by Soviet authority."*

The congress confirmed a Council of People's Commissars resolution for "the creation of a home guard for rear services, to be manned from bourgeois age groups liable for military service. . . ." The statute on rear support was ratified by a Council of People's Commissars decree dated 20 June 1918. The home guard was set up in the form of independent battalions, companies, and teams. These units were designated for trench, construction, and road work, or for duty in rations, clothing, and other depots as well as in various military workshops.

The decisions of the 5th Congress of Soviets reflected the Leninist tenets on military organizational development and began a concrete program for the struggle to create a massive regular army. Speaking at the congress, V. I. Lenin expressed his certitude that the workers and peasants, having tasted the fruits of revolution and having recovered from the blow inflicted by Germany, would be able "to create a new, well-organized, well-disciplined army and to build it on a new basis. . . ."

The decisions of the congress received the full support of the party, the working class, and the poor peasantry. Party, soviet, and military organs began the political and organizational work needed to build a massive, regular Workers' and Peasants' Red Army. The People's Commissariat for Military Affairs was instructed by an All-Russian Central Executive Committee resolution dated 29 May 1918 to prepare within a week a conscription plan for the Moscow, Petrograd, Don, and Kuban' regions that would cause the least disruption in industry and society.

During June 1918 the Council of People's Commissars decreed that workers, and peasants not exploiting the labor of others, would be called up for military service as follows: 11 June, five age groups in 51 administrative districts of the Volga, Ural, and West Siberian military districts; 17 June, two age groups in Moscow and its suburbs; and 29 June, two age groups in Petrograd and its suburbs.

The conscriptions proceeded under adverse circumstances. In the countryside, the counterrevolution took advantage of the slightest aggravation of the class struggle to provoke kulak uprisings, and it sometimes even got the newly mobilized men to mutiny. An appreciable proportion of the

middle-class peasantry continued to waver and yield to anti-Soviet agitation, which was manifested in instances of draftees refusing to report for enrollment. Reports came from a number of provinces that it was impossible to proceed with mobilization due to a lack of rations, weapons, and uniforms. Another adverse factor was the weakness of the military commissariats, which, in many small rural districts, were only being formed.

The agitational and organizational work of party organs and trade unions was instrumental in overcoming these difficulties, thus promoting mobilization. The first mobilizations of workers in Moscow and Petrograd went well. During the second half of 1918 Moscow, together with its suburbs, and the Petrograd Military District gave the Red Army at least 200,000 men. "The workers of Petrograd, followed by those of Moscow, and in turn by those of the entire central industrial region," wrote V. I. Lenin at the beginning of August 1918, "are coming forward ever more concertedly, ever more insistently, ever more wholeheartedly, and in ever-increasing numbers. This is our assurance of victory."

The first mobilizations in the eastern military districts—the Volga, Ural, and West Siberian—did not go as well. This was due in part to the behavior of the middle peasantry and in part to the combat actions being fought in these regions. Here, instead of the expected 275,000 men, a mere 40,000 were recruited in June and July of 1918.¹⁰

Most helpful to the local and soviet organs in the mobilization were the Committees of the Poor, which provided strong support to the proletarian dictatorship in the countryside. These committees participated directly in forming military units manned by working peasants. In the autumn of 1918, Poor Peasants' regiments began formation in many provinces. These regiments, together with the workers' regiments, became the best units in the Red Army.

On the whole, the Soviet decrees instituting mobilization produced a sharp increase in the strength of the Red Army. By the end of October 1918, as compared to May, it had grown considerably, and was almost 800,000 strong.¹¹

The continuous rise in the Red Army's strength as a result of mobilization was an extremely important prerequisite for its transformation into a massive regular army. This task consisted in making the conscripted contingents into units and formations based on unified tables of organization and equipment; reorganizing the numerous motley detachments of the voluntary period into regular units; rearming, training, and disciplining them; and deploying them as field forces of army or front stature.

Forming regular units on a large scale was hindered by a shortage of provisions, clothing, and equipment; the pressing need to send newly

formed units to the fronts; a shortage of officers; and the large number of partisan detachments that strove to retain their independence. Because of this, it was not possible to form even half of the rifle divisions called for in the Supreme Military Council's plan. Moreover, conscription of workers into the Red Army was often prevented by the enemy's seizure of regions in which call-ups were planned. The result was that four times within a relatively short period the Soviet command was obliged to change its plans for the raising and strategic deployment of the Red Army.

Relying on the revolutionary enthusiasm of the masses, the Communist Party and the Soviet government took all possible steps to contrive the enemy's defeat and to raise and reinforce a massive army. Typical of such enthusiasm was a certain resolution adopted at a joint session of the All-Russian Central Executive Committee, the Moscow Soviet, trade unions, and factory committees held on 29 July 1918. This resolution, pointing out that the socialist Fatherland was in danger, called upon all Soviet organs and mass workers' organizations to strive for the repulse of the counterrevolutionary onslaught. In part, the resolution read: "A massive campaign for bread, massive military training, and massive arming of the workers, straining with all our might to mount a military campaign against bourgeois counterrevolution, voicing the slogan 'VICTORY OR DEATH!' Such is our general watchword."¹²

On 2 September 1918, the All-Russian Central Executive Committee passed a resolution that turned the Soviet republic into a unified armed camp. The entire economic, cultural, and political life of the country began to be adapted to the demands of war.

Turning the country into a unified armed camp called for the creation of a special administrative organ that would unite and direct the activity of all government departments, as well as the national economy and the entire state apparatus, for organizing the country's defenses and developing the Armed Forces. Such an organ, called the Workers' and Peasants' Defense Council, was created on 30 November 1918. The above resolution stated: "The Defense Council is fully empowered to mobilize the country's manpower and material resources for defense purposes."¹³

As chairman of the Defense Council, V. I. Lenin made an immense contribution to the victory won in the Civil War.

Beginning as early as the latter half of 1918, a number of emergency measures were introduced at V. I. Lenin's initiative to mobilize all resources for national defense. These measures came to be known as "War Communism." The Soviet state nationalized not only heavy industry but medium and light industry as well. Requisitioning of farm produce was instituted, as was a state monopoly of the grain trade. Strict centralized control of all sectors of the national economy was established.

Resolute steps were taken to speed up defense production. On 16 August 1918, the Council of People's Commissars founded the Extraordinary Commission for the Production of Military Equipment under the All-Russian Council for the National Economy. Its membership included representatives of the latter, the War Department, and the trade unions. The commission was under the chairmanship of an Old Bolshevik, the experienced engineer and administrator L. B. Krasin.

The main problem of the Soviet republic was, as formerly, to strengthen the Red Army in every way, to increase its numbers and improve its combat efficiency. In a letter dated 3 October 1918, addressed to a joint session of the All-Russian Central Executive Committee, the Moscow Soviet, and representatives of factory committees and trade unions, V. I. Lenin posed the task of making the Red Army 3 million strong. "Let our labor in the creation of a proletarian Red Army multiply tenfold. We decided to have an army a million strong by the spring, and now we need an army of 3 million men. We can have it, *and we will have it!*"¹⁴ Accomplishment of this task required changes in troop formation plans. A plan was prepared in November 1918 for setting up troop units and formations at the front and in military districts according to a unified organizational structure.

Prompted by the escalation of the Civil War, the Council of People's Commissars passed a resolution on 2 November 1918 to improve the supply of military equipment to the Red Army, recognizing the need to enlist factories outside the defense industry to produce weapons and other materiel. In this connection the Extraordinary Commission for the Production of Military Equipment was transformed into the Extraordinary Commission for Red Army Supply, with wider powers and functions.¹⁵ Its membership was enlarged by the addition of executives from the All-Russian Central Executive Committee, the All-Union Central Trade Union Council, and the People's Commissariat for Military Affairs. The commission was empowered to requisition the services of large and small enterprises for defense production. The commission monitored the collection, inventory, storage, and expenditure of military property by all departments and agencies, and could prosecute individuals for opposing or failing to support its decisions.

The policy of War Communism concentrated in the hands of the Soviet state the main industrial, food-producing, and labor resources of the land, thus permitting the Red Army's combat needs to be met to some extent, although not fully. By the beginning of 1919, the Soviet defense industry's monthly output was 90,000 to 100,000 rifles, 500 to 600 machine guns, 40 to 50 artillery guns, over 90,000 shells, more than 35 million rounds of small-arms ammunition, and much other military equipment.¹⁶ The manufacture of footwear, clothing, and other stores was underway at 330 industrial enterprises.¹⁷ As a result, the Defense Council managed, despite the prevailing chaos, to satisfy the most pressing needs of the fronts.

The introduction of universal military training for workers and peasants, followed by universal conscription, made it possible to prepare trained reserves.

Whereas in October 1918, 170,203 persons completed the universal military training program, the corresponding figure for December 1918 was already 675,437.¹⁸ Upon completion of the 96-hour program, citizens of call-up age were enrolled in reserve units. Each military district was expected to train 20,000 persons every month.

A statute on the reserves was enacted in February 1919. Forming reserve units was entrusted to military commissariats at the military district and provincial levels. At this time, the strength of reserve units was more than 82,000 men.¹⁹

The creation of reserve units did not keep up with the needs of the fronts. Until the spring of 1919, the People's Commissariat for Military Affairs had to reinforce the armies of the Eastern and Southern fronts with replacement companies from divisions still being formed in the districts, thus increasing the time required to bring such divisions up to authorized strength.

Merely during January-March 1919, the fronts were reinforced by about 140,000 men from internal military districts. During the autumn of 1918, the Southern Front was reinforced by 100 replacement companies from 11 divisions still in the formative stage.

The party's Central Committee, providing general guidance in military organizational development, directed the efforts of party military specialists and War Department organs to accelerate the creation of a massive, centralized, and well-disciplined army. V. I. Lenin and the Communist Party were especially concerned about increasing the combat efficiency of the army in the field, strengthening its party-political apparatus, and augmenting the role and influence of party cells among the troops.

2. The Introduction of a New System of Command, Control, and Organization

Reorganization of the command and control system was necessary for the organizational development of a regular army based on universal military service. A very important aspect of this highly complex and multifaceted process was further centralization of command and control and of the War Department as a whole.

Since escalation of foreign intervention and the Civil War had virtually given rise to several fronts, the need arose for a central organ to give

unified direction to the Red Army's organizational development and its combat activity. Such an organ was the Revolutionary Military Council of the Republic, which was created by an All-Russian Central Executive Committee resolution on 2 September 1918. This resolution simultaneously abolished the former Supreme Military Council and the Collegium of the People's Commissariat for Military Affairs.

With the creation of the Revolutionary Military Council of the Republic, the Supreme Military Council Staff was disbanded. It was replaced by the Field Staff of the Revolutionary Military Council of the Republic, a newly formed organ for the direction of military operations.

On 6 September, the council began to perform its functions. Directly subordinated to it were the All-Russian Main Staff, the Higher Military Inspectorate, the All-Russian Bureau for Military Commissars, the Central Directorate for Army Supply, the Military Legislative Council, and other military bodies.

The people's commissar for military affairs also served as chairman of the Revolutionary Military Council of the Republic, but his appointment was subject to approval by the All-Russian Central Executive Committee. Membership in the council had to be ratified by the Council of People's Commissars.

At the outset, the following served on the council: I. I. Vatsetis (commander in chief), K. Kh. Danishevskiy, P. A. Kobozev, K. A. Mekhonoshin, A. P. Rozengol'ts, I. N. Smirnov (members), and L. D. Trotsky (chairman). Soon afterwards, additional members were appointed to the council: S. I. Aralov, N. I. Podvoyskiy, E. M. Sklyanskiy, and K. K. Yurenev.

The post of commander in chief of the Armed Forces of the Republic was introduced. Its incumbent had the necessary autonomy in operational and strategic matters, subject to conformity with directives and instructions issued by the party's Central Committee and the Soviet government. The commander in chief's orders had to be countersigned by a member of the Revolutionary Military Council of the Republic. I. I. Vatsetis, formerly in command of the Eastern Front, was appointed commander in chief of the Armed Forces of the Republic under an order issued by the council on 6 September 1918.

On 11 September 1918, the council defined the structure of the army in the field. Three fronts were formed: the Northern, Eastern, and Southern, with their headquarters at Yaroslavl', Arzamas, and Kozlov respectively. Also formed was the Western Defensive Region, with its headquarters in Moscow.

A statute on front commanders and army commanders was enacted by the Council of People's Commissars in December 1918. Consolidated in it were the principles applied by the party's Central Committee for the direction of the Soviet Armed Forces in situations in which the senior officers were mostly military specialists who did not belong to the party. At the head of each front and army headquarters there was a revolutionary military council directly subordinated to the supreme military authority. The commander had autonomy in operational and strategic matters, as well as the right to appoint or move officers within the prescribed limits of his authority. The orders of a front commander or an army commander had to be countersigned by a member of his revolutionary military council.

The Revolutionary Military Council of the Republic and the High Command having been created, the institution of revolutionary military councils at the front and army levels completed the Soviet system for direction of the Armed Forces and command and control under the specific conditions of the Civil War. This system was, wrote V. I. Lenin, collectively elevated to the status of an organizational philosophy that penetrated all Army installations, while tending toward unity of command.²⁰ The system was combined with the personal responsibility and autonomy of the military commander in operational and strategic matters. V. I. Lenin favored a gradual but unwavering transition to the unity of command principle as the only correct method of organizational development and command and control in the Red Army.*

An important step in the establishment of a uniform and precise procedure for command and control at the front was the Revolutionary Military Council's enactment on 26 December 1918 of a statute instituting the field directorate as an organizational entity to conduct military operations. This document made judicious use of experience accrued by the old Russian army together with new troop control ideas. The revolutionary military council of the front directed combat actions through the field directorates, which included the following entities: a front staff, political section, revolutionary military tribunal, military control, chief of supply, chief of medical services, and inspectorate for the branches. The work of the political section, revolutionary military tribunal, and military control was under the immediate direction of members of the revolutionary military council of the front, that is, of military commissars. A similar arrangement existed at the army level.

There was continued improvement in the direction of the branches. In accordance with a People's Commissariat for Military Affairs order dated

*[The essence of unity of command is the commander's personal responsibility for the morale, discipline, military and political training, combat readiness and combat activity of his men. See definition on p. 74 in SMT No. 9, the *Dictionary of Basic Military Terms*—U.S. Ed.]

30 August 1918, the Armored Units Council was transformed into the Red Army Armor Administration, which incorporated the Main Military Engineering Administration.²¹

The central apparatus for the artillery directorate was set up toward the end of 1918. Subordinate to the Field Staff of the Revolutionary Military Council of the Republic was the directorate of the inspector for artillery. Subject to its general supervision were the correct use of artillery in combat, the timely supply of ordnance stores to field forces and armament depots, and the marshaling and training of artillery units and formations. In addition, it exercised general technical supervision of ordnance, directed the solution of problems in the development and combat use of artillery, and prepared guidelines for front artillery inspectors on the operational use of artillery.²²

The Main Artillery Directorate was in charge of the production of ordnance and administered weapons factories, arsenals, depots, and magazines. It kept an inventory of artillery held by units and formations and ensured their supply with ammunition and equipment.

Artillery inspectors were instituted at the front and army levels. A front artillery inspector reported directly to the front commander and to the Revolutionary Military Council of the Republic's inspector. He supervised the army artillery inspectors in his front and inspected artillery units that were not components of any army.

The chief of the army artillery supply section and the chief of the front artillery supply directorate managed the supply of all forms of artillery and ammunition at the army and front levels.

Military district artillery directorates were instituted in each military district in the spring of 1918. They supervised the formation of artillery units, and reserve artillery units were at their disposal.

The overall direction of engineer activity and operational support measures was carried out until September 1918 by the inspector of engineers under the Supreme Military Council, and then by the inspector of engineers under the Field Staff of the Revolutionary Military Council of the Republic. Much organizational work in engineer support was done by the Collegium for Engineer Defense. Its chairman was Professor K. I. Velichko, and its senior member was D. M. Karbyshev. Both were combat engineers. By the end of 1918, under the direction of the collegium, a new system had been developed for timely engineer preparation of theaters of operations.

Expansion of Red Air Force combat activity required improvement of the operational direction of aviation detachments. In accordance with an

order from the People's Commissariat for Military Affairs in May 1918, the All-Russian Collegium for the Direction of the Air Force was replaced by the Main Administration of the Workers' and Peasants' Red Air Force, which was entrusted with broad tasks in the organizational development of military aviation and the direction of its combat actions.

Command and control of military aviation changed substantially with the advent of the Revolutionary Military Council of the Republic. Formed within the council in September 1918 was the Field Directorate for Aviation and Lighter-Than-Air Units, whose first chief was the pilot A. V. Sergeyev, an RKP(b) member since 1911. Field directorates for aviation were also formed at the front and army levels. Through them, the main field directorate directed the combat actions of military aviation. The Main Administration of the Workers' and Peasants' Red Air Force retained only its administrative, technical, and supply functions.

To increase the combat efficiency of the Workers' and Peasants' Red Navy, and to improve the centralized direction of its task forces and formations, the structure of the central apparatus of the People's Commissariat for Naval Affairs was improved. The post of commander of Naval Forces of the Republic was created in September 1918 at the decision of the Council of People's Commissars and the party's Central Committee. Its first incumbent was the experienced naval mariner V. M. Al'tfater. In December 1918, the Naval Section of the Revolutionary Military Council of the Republic was formed.

The Baltic Fleet was headed by a revolutionary military council. Early in 1919, such councils were instituted in the Volga Flotilla and in the Astrakhan-Caspian Flotilla. Ship committees were abolished. All authority in a warship was vested in the captain and commissar.

The country's transformation into a unified armed camp required improvements in the administration of rear services and the creation of a supply system which would be efficient, flexible, and effective. To this end, the People's Commissariat for Military Affairs founded the Central Supply Administration for the Red Army in June 1918. This was the supreme organ of the system supplying the Armed Forces with all the necessary commodities. The administration was headed by a supply council consisting of a supply chief and two commissars. The post of supply chief was filled in turn by A. A. Manikovskiy, Ye. I. Martynov, and I. I. Mezhlauk.

Subordinated to the Central Supply Administration were the Main Artillery Administration, the Main Military Technical (later renamed Military Engineering) Administration, the Main Air Force Administration, the Main Logistics Administration, the Main Quartering Administration, the Main Military Medical Administration, the Main Military Veterinary Ad-

ministration, and the Main Administration for the Supply of Horses to the Army. It was the responsibility of the Central Supply Administration to provide units and formations with weapons, ammunition, and all other military commodities.

Naval supply was organized by the Main Naval Logistics Administration and by the Main Shipbuilding Administration.²³

Rear services were organized during the autumn of 1918. The principal features were contained in a Revolutionary Military Council of the Republic order dated 11 September 1918 that defined the effective strength of the fronts and the dividing lines between them. When defining the depth of each front region, the council considered its special features, its level of economic development, and the condition of its transport. Deep-rear regions with railroads were designated for each front. These regions linked the Red Army's field forces with the state materiel bases and permitted wide maneuver of men and supplies from in depth and along the front.

In the field, supply problems were solved by the supply chiefs at the front, army, division, and brigade levels, who had at their disposal the following services: logistics, artillery and engineering support, motor transport, financial, and veterinary.

The organizational development of a massive regular army was inseparable from development of the services in harmony with the branches. A correlation of these entities had to be found that would meet the demands of warfare. Organizational forms had to be developed that would not only increase the troops' fighting strength but would also make possible continuous and flexible command and control.

A characteristic feature of the organizational development of ground forces was the transition from temporarily assembled detachments to regular units and formations created in accordance with authorized tables of organization and equipment. This transition was begun on the Eastern Front. The revolutionary military council of the front decided to merge odd detachments into regular units and formations led by military specialists and party members with combat experience. Later, this measure was carried out with more precision under a plan adopted by the Revolutionary Military Council of the Republic on 11 September 1918 for the formation of divisions.* In a short time, numerous odd detachments were integrated into five army field forces. This was a great advance in the

* The new plan envisaged the following newly formed divisions by the end of 1918: 12 rifle divisions (11 in internal military districts and 1 in the Volga Military District); 2 cavalry divisions (1 each in the Moscow and Orel military districts). On the Eastern and Southern fronts, 18 rifle divisions were formed.

organizational development of the Red Army's active forces. As a result of the measures adopted, by the end of 1918 the Eastern Front had five armies with a total strength of about 132,000 men.²⁴

On the Southern Front, the creation of regular units and formations proceeded somewhat more slowly. There were those among the leadership on this front who did not understand the need for a regular army. They openly supported the partisan movement, protested against a tightening of military discipline, and objected to the employment of military specialists, regarding this as a reversion to the old, dismantled army. After the enemy's first offensive against Tsaritsyn had been repulsed at the beginning of September 1918, and Krasnov's men had been hurled back beyond the Don, the revolutionary military council of the Southern Front began forming field armies. In accordance with a resolution dated 29 September, the front's fighting forces were divided into five armies. As of 1 October 1918, their strength exceeded 137,000 men.²⁵

By 15 October, the Northern Front was about 26,000 strong.²⁶ Petrograd workers and detachments of Baltic Fleet sailors comprised its nucleus. Regular units and formations were created directly in the course of hostilities against the interventionists and White Guards, who were approaching Petrograd and had penetrated deeply into the interior elsewhere.

By the beginning of October 1918, the ground troops were deployed as 12 army field forces consisting of 34 rifle divisions and 1 cavalry division.²⁷ Besides, in accordance with an order issued by the Revolutionary Military Council of the Republic, military district commissariats were forming a High Command Reserve consisting of 11 divisions with 9 regiments in each.²⁸

With the growth of the Red Army's strength and combat efficiency, it became possible to mount a counteroffensive on the Eastern Front. In a combined operation, the 2nd Army, the Volga Naval Flotilla, and an air group inflicted a crushing defeat on the enemy's Kazan' grouping, and on 10 September 1918, Kazan' was liberated. V. I. Lenin called the taking of Kazan' a brilliant victory that heralded "a turning point in our army's mood, and its transition to firm, resolute, victorious actions."²⁹

The highest tactical formation was the rifle division. According to the table of organization and equipment promulgated in a Revolutionary Military Council of the Republic order dated 13 November 1918, its authorized composition was as follows: 3 brigades with 3 regiments in each; 5 artillery battalions, 3 of which were assigned to the brigades; an independent cavalry artillery battery; an independent cavalry battalion; an engineer battalion; a signal battalion; an armored detachment; and an aviation battalion. The strength of the rifle division was raised to 58,800

men. Its authorized equine contingent was increased to 23,400. The rifle division was to have the following weapons: 36,265 rifles and carbines, 324 light machine guns, 520 heavy machine guns, 116 artillery guns, and 54 mortars.

However, owing to shortages of armament and combat equipment, not a single rifle division was brought up to authorized strength during the period under review or during any subsequent period of the Civil War. A specific instance of such shortages is provided by the 125 rifle brigades and 9 cavalry brigades to be deployed by February 1919. Of the weapons needed to arm these brigades in accordance with the new tables of organization and equipment, the following were lacking: 239,000 rifles, 837,000 carbines and dragoon rifles, 14,500 machine guns, and 2,650 artillery guns of various calibers.¹⁰

The possibility of bringing rifle divisions up to authorized strength in accordance with the new tables of organization and equipment was also prevented by a shortage of qualified command personnel.

The average strength of a rifle division at this time was 7,000 to 10,000 men. The artillery armament of such a division amounted to 30 to 40 guns.¹¹ A rifle regiment could muster 800 to 1,200 bayonets.

However, despite this, the introduction of a unified table of organization and equipment for rifle divisions eliminated heterogeneity and autonomy from troop units, thus promoting the deployment of standardized units and formations. By the beginning of 1919, the Red Army already had 42 rifle divisions.¹²

The proportion of cavalry in the ground forces increased considerably. According to data for 1 March 1919, the cavalry of the army in the field could parade 29,910 sabers.¹³ The tactical potentialities of cavalry were increased not only because of the increase in its numerical strength but also because of improvements in its organizational structure.

Characteristic of the organizational development of the cavalry of this period was a transition from small units lacking an overall organizational structure to large formations. For example, the partisan cavalry detachment of S. M. Budennyi, which originated in the large Cossack village of Platovskaya in the spring of 1918, could parade only 120 sabers at the outset. However, it was promptly joined by other partisan cavalry detachments formed in the Sal'sk steppes. In accordance with an order issued by the revolutionary military council of the Southern Front on 24 September 1918, the cavalry detachments of the Sal'sk group were merged to form the 1st Don Soviet Cavalry Brigade, which in March 1919 was reformed into the 4th Cavalry Division.

On the Eastern Front, at M. V. Frunze's initiative, the 4th Army's cavalry units and the Orenburg Rifle Division were merged to form the 3rd Turkestan Cavalry Division. In 1918, the Orenburg Cossack cavalry detachments were reorganized into the Troitskiy Red Cossack Regiment and the Stepan Razin Red Cossack Regiment, which were later merged to form the independent cavalry brigade of Orenburg Cossack labor. On 19 February 1919, complying with the instructions of the RKP(b) Central Committee and the Soviet government, the Revolutionary Military Council of the Republic issued a directive stating that the 1st Cavalry Division and the 2nd Cavalry Division were to be formed in the Moscow Military District and the Orel Military District, respectively, and that the 1st Independent Cavalry Brigade was to be formed in the Petrograd Military District.

Combat experience gained at the fronts in the Civil War during the summer and autumn of 1918 showed the need to change the organizational structure of artillery. Our artillery had consisted primarily of battalions and batteries that were components of rifle and cavalry formations. During the latter half of 1918, special purpose artillery units began formation as a means of operational maneuver. By December 1918, the following had been formed: 3 special purpose heavy artillery brigades, including 11 independent battalions; a reserve brigade of 4 battalions; and a reserve artillery brigade of 2 battalions. These artillery battalions, intended for army support, had 198 guns of various calibers.

The basic organizational entities employed in the armored forces were the armored train and the armored car unit. A unified table of organization and equipment for each was approved in September 1918. The authorized complement of an armored train was as follows: a staff, a train crew, and a combat unit 650 strong. Its rolling stock consisted of an armored locomotive, two armored flatcars, and two or three minesweeping cars. An armored train was armed with cannons and machine guns. In the autumn of 1918, the Red Army had 23 armored trains. An armored car detachment consisted of a staff, 4 armored cars, and up to 100 men. By October 1918, the Red Army had 37 armored car detachments and a vehicle inventory of 150 armored cars. At the end of the year, one such detachment was authorized, in principle, for each rifle division.

As a rule, armored trains and armored car detachments were used in sectors where decisive combat actions were being fought. During offensive operations, they not infrequently provided the main striking power and firepower. In coordinated action with infantry and cavalry, the armored trains played a major role in repulsing the enemy's attacks.

As combat actions unfolded, there was a growing need for engineer works at the fronts and, in particular, for the creation of strong points and centers of resistance. There was a need for engineer support to make forcing water barriers easier. However, meeting these needs was hampered by a shortage of engineers.

In June 1918, the Council of People's Commissars issued a decree authorizing the conscription of workers who had served as engineer troops. As a result, by the end of the year many rifle divisions had engineer battalions. Special engineer units also began formation: 4 pontoon battalions, 1 motor-pontoon battalion, 1 independent searchlight company, 2 electrical engineering battalions, 2 independent camouflage companies, and 1 engineer training and testing ground.¹⁴

The progress of the Workers' and Peasants' Red Air Force could be measured by the amount of air materiel in its possession and the rate at which air detachments were formed and sent to the front. In September 1918, the Soviet republic had at its disposal an air force of 435 aircraft, 269 pilots, and 59 observers.¹⁵

The RKKVF's* air materiel inventory and combat potential began to improve only when all enterprises of the aircraft industry had been nationalized. The Main Administration of the Aircraft Industry was created within the All-Russian Council for the National Economy to manage these enterprises. The Council of People's Commissars and the Defense Council took all steps possible under the prevailing circumstances to provide the aircraft industry with raw material, fuel, and a qualified work force. During 1918-19, the aircraft industry and the repair facilities—the front aviation supply depots and the army railborne aircraft workshops—produced and overhauled 722 aircraft and 746 aircraft engines.¹⁶

Owing to the administrative effort of the party and government, and to the selfless toil of the aircraft builders and maintenance personnel, the number of air detachments in the army in the field rose rapidly, totaling 6, 38, and 56, in August 1918, November 1918, and January 1919, respectively.¹⁷

By the beginning of 1919, the Red Air Force had a unified table of organization like the regular Red Army and was capable of performing important combat missions.

The organizational development of the Red Navy proceeded in an adverse situation. In the summer of 1918, the coasts of the White Sea, the Barents Sea, the Sea of Azov, the Black Sea, the Far Eastern Maritime

*[RKKVF — *Raboché-Krest'vanskii Krasnyi Vozdushnyi Flot* "Workers' and Peasants' Red Air Force" — U.S. Ed.]

Region, and the Amur Region were in the hands of interventionists or White Guards, as was a substantial part of the Caspian Sea. The Baltic Fleet, which was at the disposal of Soviet authority, could be based only in the eastern part of the Gulf of Finland.

The ring of fronts encircling the Soviet republic tightened. The center of the armed conflict shifted so that large waterways such as the Volga, Kama, Dnepr, Don, and Severnaya Dvina were of paramount military and economic importance. This circumstance posed a new problem: to form river flotillas capable of rendering effective aid to the ground forces.

Formation of the flotillas became methodical and centralized. The party's Central Committee, the All-Russian Central Executive Committee, and the Council of People's Commissars decided to send sailors, invested with wide powers, to the large seaports to mobilize men and equipment to organize large naval river formations. The Council of People's Commissars adopted a number of resolutions allocating the resources needed to form the flotillas and to support their combat activity.

The chronology of the creation of naval lake and river flotillas [base in parentheses] was as follows: June 1918, the Volga [Upper Reaches] Flotilla (Nizhniy Novgorod), the Volga [Lower Reaches] Flotilla (Tsaritsyn), and the Lake Onega Flotilla (Petrozavodsk); August-September 1918, the Severnaya Dvina Flotilla (Kotlas); October 1918, the Astrakhan'-Caspian Flotilla (Astrakhan'); early in 1919, the Dnepr Flotilla (Kiev), and the Soviet Latvia Flotilla (Riga, Vitebsk).

On 27 August 1918, the Council of People's Commissars passed a decree authorizing republic-wide conscription of workers and peasants born in 1893-97 who had previous naval service. The People's Commissariat for Military and Naval Affairs was entrusted with the allocation of the draftees and with the formulation of their rules and conditions of service. In accordance with fleet orders, all sailors serving afloat or in shore establishments as volunteers were reclassified as servicemen.

Among the official documents promulgated during the summer of 1918 which played an important role in the organizational development of the RKKF* and in the improvement of its combat efficiency were the new rules and regulations for draftees inducted into active naval service, the statute defining the rights and obligations of naval personnel and the daily routines to be worked afloat and in onshore naval units, and the interim statute on disciplinary courts in naval vessels and onshore naval units.

*[RKKF - *Rabocho-Krest'yanskii Krasnyi Flot* 'Workers' and Peasants' Red Navy' - U. S. E.S.]

The sailors conscripted in accordance with the decree dated 27 August were originally intended for duty in naval units. However, in view of the adverse situation at the fronts, many were sent to Red Army units or formations. Most vessels of the Volga, Astrakhan'-Caspian, and other naval flotillas were manned by volunteers from the merchant marine.

Vestiges of the voluntary period (appointment of officers and commissars by election, wide powers of shipboard committees, and so forth) persisted longer in the Red Navy than in the Red Army. This was largely due to the former's mixed system of manning and to the change in the social composition of naval personnel caused by the departure of the best contingents of revolutionary sailors to the front.

From the summer of 1918, the Baltic Fleet was divided organizationally into three naval forces: the Kronshtadt Force, the Petrograd Force, and the Neva-Ladoga Force. Each was headed by a senior naval chief with the powers of a senior flag officer.

V. I. Lenin attached great importance to making the fullest possible use of the Baltic Fleet's resources in the Civil War, primarily for reinforcing and replenishing the naval flotillas. During the latter half of 1918 and the early part of 1919, in compliance with directions from V. I. Lenin, torpedo boats and submarines were transferred from the Baltic to the river flotillas through the inland waterways.

The Baltic Fleet was the principal source from which the flotillas were supplied with naval artillery, mines, torpedoes, minesweeping equipment, navigation equipment, assorted technical materiel, and ammunition. During a period of only 5 months (May-September 1918), the following munitions were dispatched to the North, to the Volga, and to the Caspian Sea: more than 200 naval guns of various calibers, about 70,000 shells, a great number of mines, minesweeping equipment, searchlight units, and shipboard radio sets."

An immense amount of work was done at the naval flotilla bases and at shipbuilding and ship repair enterprises to arm and reequip merchant vessels. By the selfless toil of industrial workers and shipboard personnel, dozens of steamships and motor ships, and hundreds of other craft, were fitted with guns and were converted into floating batteries, escort vessels, minesweepers, gunboats, and torpedo boats. Such craft provided artillery support when ground forces were breaking through the enemy's defenses, neutralizing his strong points, and annihilating his personnel.

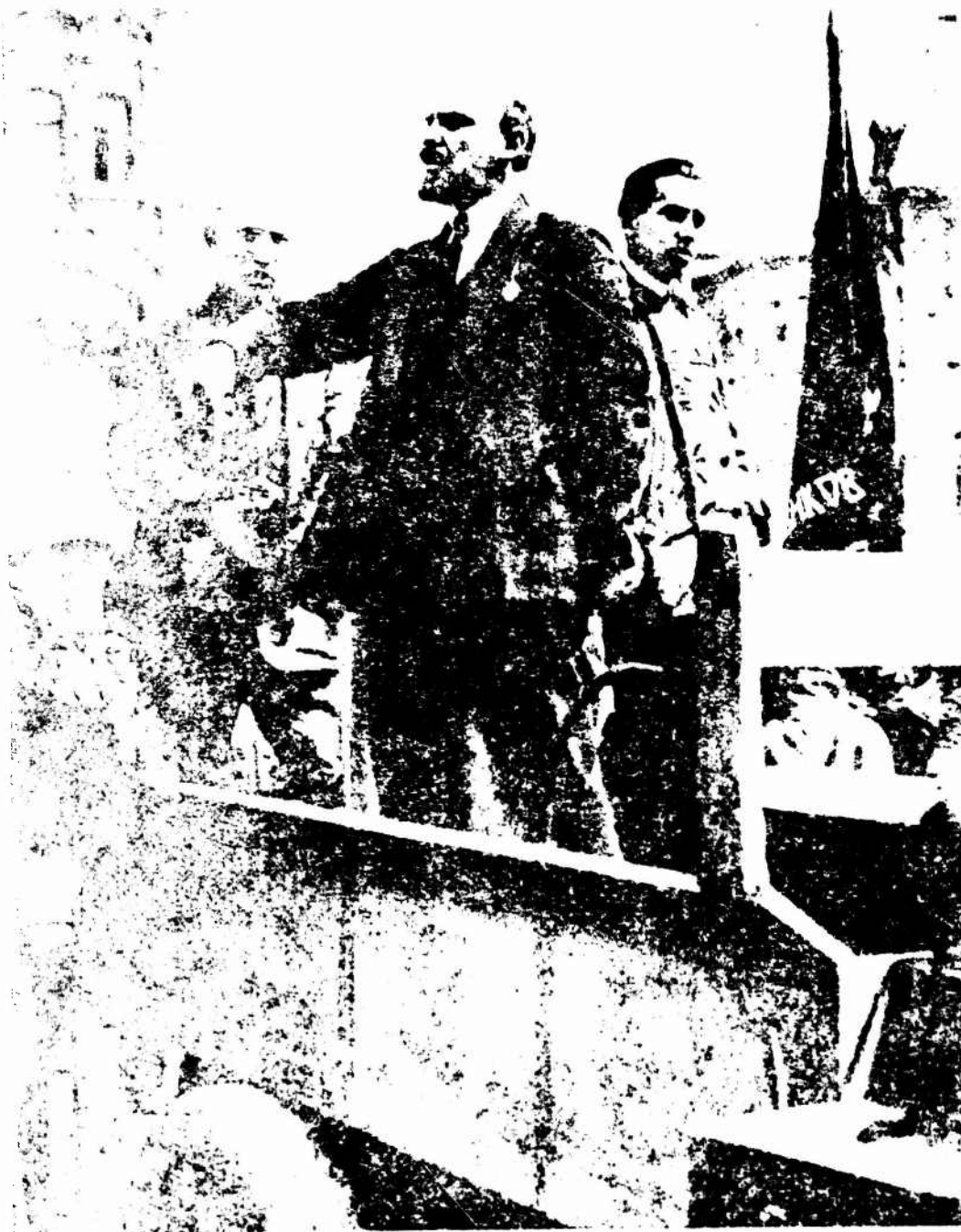
The numerous auxiliary vessels of the flotillas were widely used to land troops, force rivers, and support combat actions generally.



Revolutionary soldiers and Red Guards defending Smol'nyy, 1917.



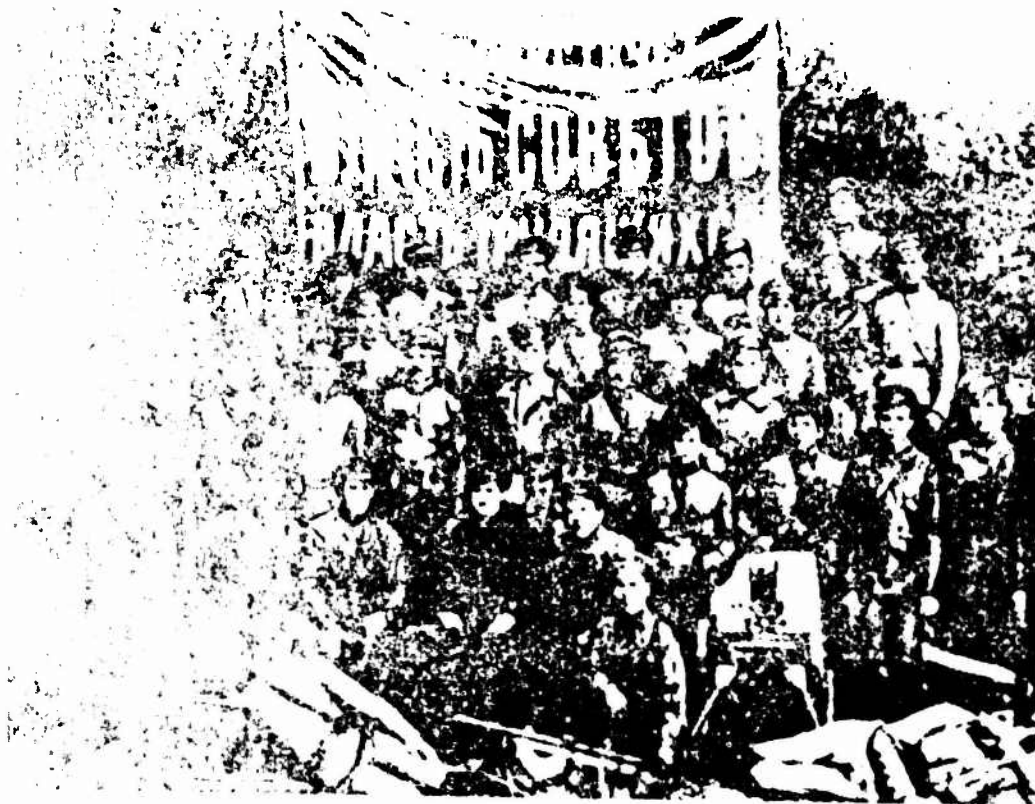
A group of soldiers and members of a Poor Peasants' regiment before being sent to the front 1918.



V. I. Lenin making a speech in Red Square to troops undergoing universal military training, 25 May 1919.



Armored detachment under the Red Guard Central Staff, 1917.



Red Guards of the Lanchoy gunpowder factory, 1917.



Revolutionary soldiers and Red Guards defending Smol'nyy, 1917.



A group of soldiers and commanders of a Poor Peasants' regiment before being sent to the front against Yudenich, 1918.

[illegible]

The decree issued by the Council of People's Commissars to create the RKKA.



Mobilization into the Red Army, 1918.

Декрет Всероссийского Центрального Исполнительного Комитета Советов о формуле торжественного обещания при вступлении в рабоче-крестьянскую Красную армию, 22 (9) апреля 1918 г.¹

1. Я сын трудового народа, гражданин Советской Республики, принимаю на себя звание воина рабочей и крестьянской армии.

2. Перед лицом трудящихся классов России и всего мира я обязуюсь носить это звание с честью, добросовестно изучать военное дело и как воину ока охранять народное и военное имущество от порчи и расхищения.

3. Я обязуюсь строго и неуклонно соблюдать революционную дисциплину и беспрекословно выполнять все приказы командиров, поставленных властью Рабочего и Крестьянского правительства.

4. Я обязуюсь воздерживаться сам и удерживать товарищей от всяких поступков, унижающих достоинство гражданина Советской Республики, и все свои действия и мысли направлять к великой цели освобождения всех трудящихся.

5. Я обязуюсь по первому зову Рабочего и Крестьянского правительства выступить на защиту Советской Республики от всяких опасностей и покушения со стороны всех ее врагов и в борьбе за Российскую Советскую Республику, за дело социализма и братства народов не щадить ни своих сил, ни самой жизни.

6. Если по злему умыслу отступаю от этого моего торжественного обещания, то да будет моим уделом всеобщее презрение и да покарает меня суровая рука революционного закона.

Председатель Всероссийского Центрального Исполнительного Комитета Советов Я. Свердлов.

Секретарь Аванесов.

The decree issued by the All-Russian Central Executive Committee on the wording of the Solemn Promise required to join the RKKA.



One of the first Red Army regiments, 1918.



N. I. Podvoynskiy greets graduates of the first Moscow infantry courses for RKKA command personnel, 1918.

N. V. Krylenko



P. Ye. Dybenko



S. S. Kameney



I. I. Vatsetis





K. Ye. Voroshilov, M. V. Frunze, and S. M. Budenny on the Southern Front, 1920.



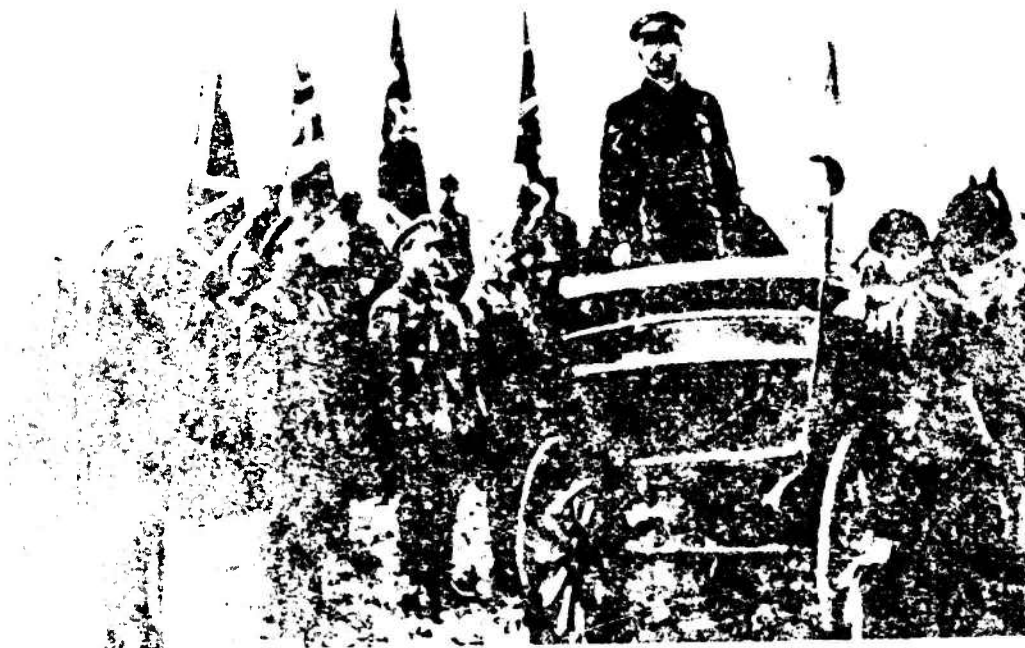
V. I. Chapayev.



Leaflets and newspapers are delivered to the front, 1919.



Newspapers and magazines of the Civil War period.



Mr. E. Lytham speaks at a rally of soldiers and commanders of the 1st Cavalry Army, 1920.



A party meeting of sailors from a Baltic Fleet warship, 1919.



Employees of the Westinghouse plant undergoing military training. Petrograd, May 1919.



Skiers under instruction in the universal military training program.



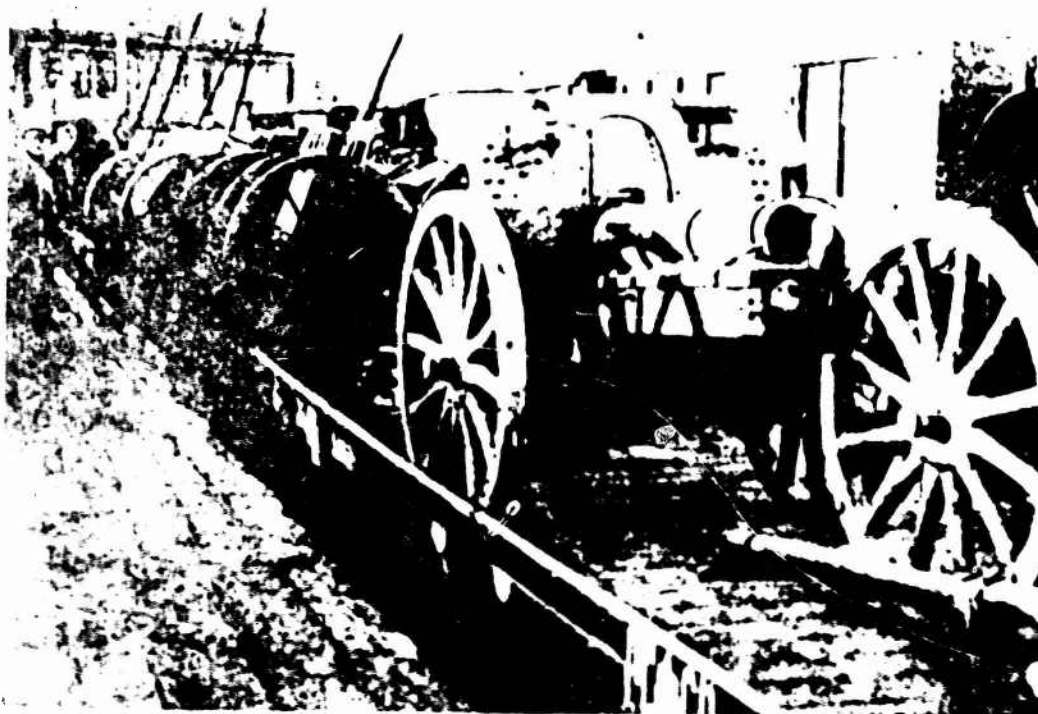
The 1st Cavalry Regiment of the RKKA's 1st Cavalry Corps. Petrograd, 1918.



Bashkirian cavalymen before going to the front, 1919.



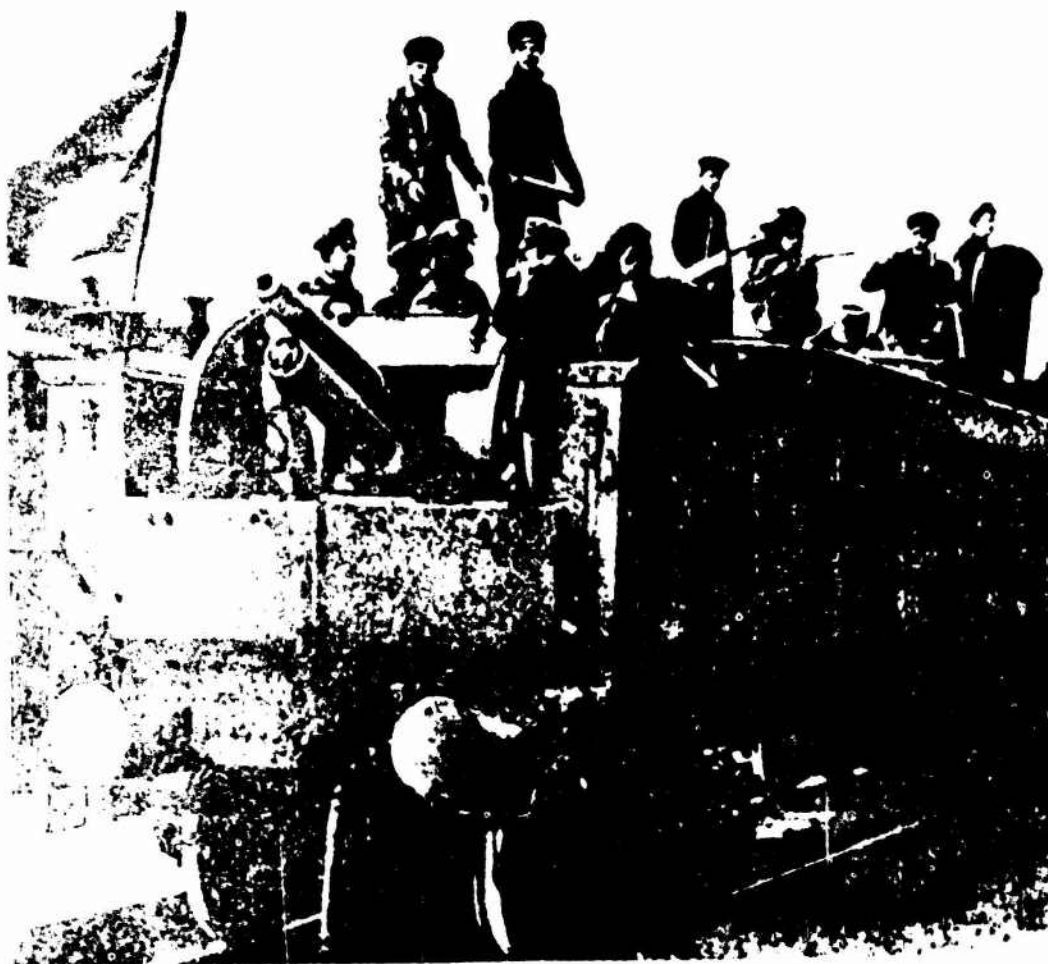
Artillery battery of the "Krasnyye Orly" Regiment.



Destined for the Polish Front, Kazan', 1920.



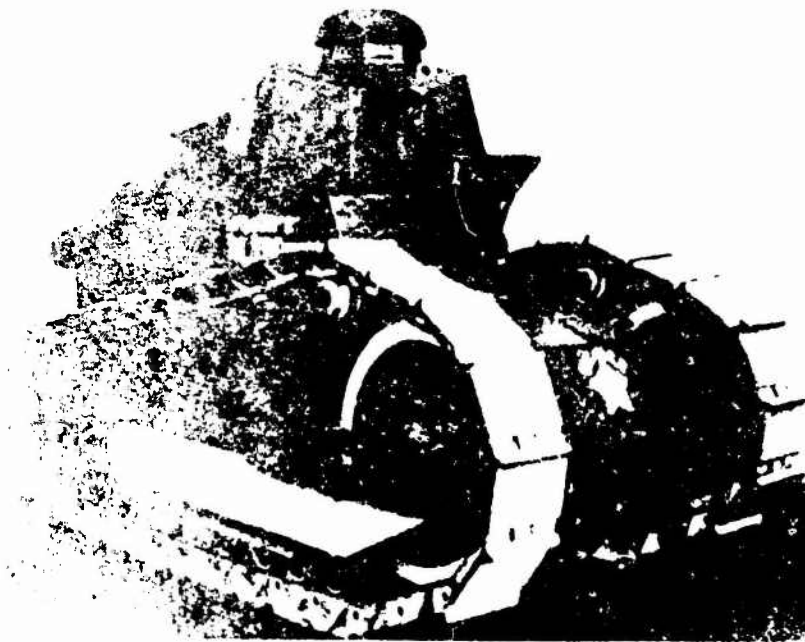
The armored train *Chernomorets* at the approaches to Tsaritsyn, 1918.



Armored flyer on the Eastern Front, 1918.



Armored car detachment on the Petrograd Front, 1919.



The first Soviet series-produced tank, at the "Krasnoye Sormovo" plant, 1920.



Radio units of the 1st Cavalry Army, 1920.



F. E. Dzerzhinskiy



S. M. Kirov



G. K. Ordzhonikidze



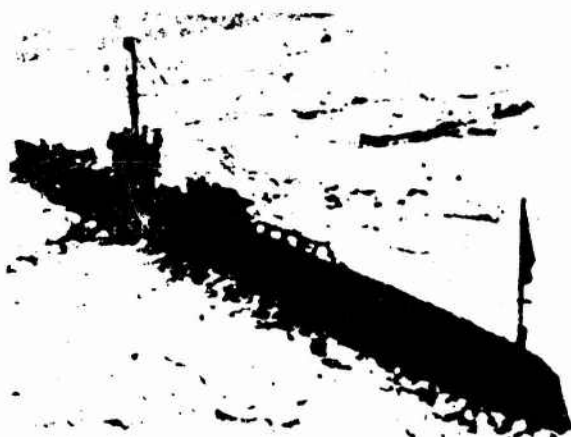
J. V. Stalin



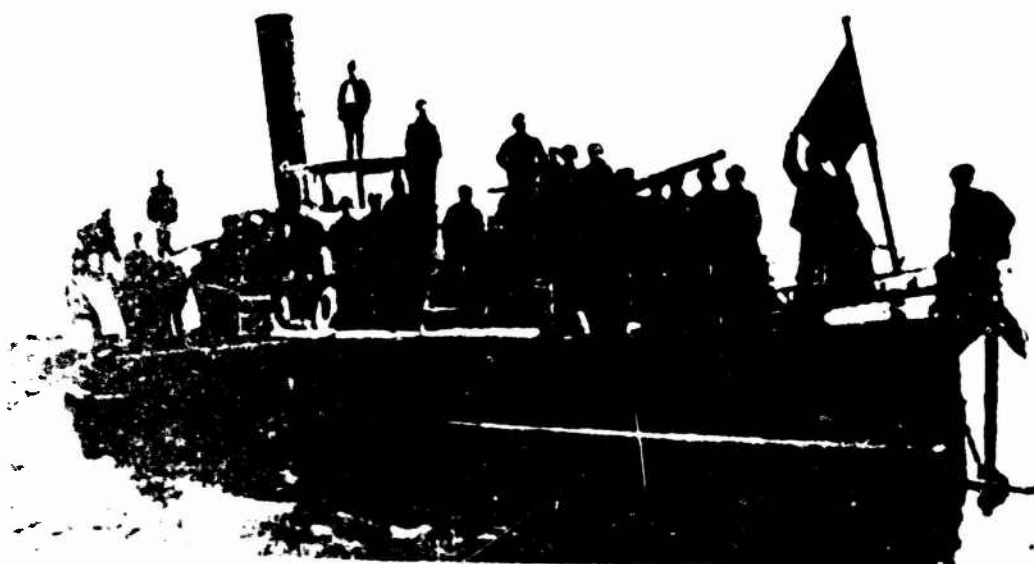
Aviation detachment of the 1st Cavalry Army on the Southwestern Front, 1920.



The "Ice Cruise" of the Baltic Fleet, 1918.



The submarine *Rys*, 1918.



Gunboat of the Dvina River Flotilla, 1919.

The Border Troops and Internal Troops underwent further transformations. Their organizational development was closely linked with that of the Red Army and Navy.

Substantial changes took place in guarding the state border of the Soviet republic. In accordance with a decree issued by the Council of People's Commissars and dated 29 June 1918, the Main Border Guard Administration, together with all its affiliated establishments, was resubordinated from the People's Commissariat for Finance to the People's Commissariat for Trade and Industry.³⁹ A Soviet government decree dated 3 July 1918 instituted a military council to direct the Main Border Guard Administration and its troops. This council consisted of a military director, A. L. Pevnev, and two military commissars, P. F. Fedotov and V. D. Frolov. Its functions were to manage the manning of the Border Guard by district and region, to oversee the training of the troops, and to formulate mobilization plans.

At first, the Border Guard was manned on a voluntary basis. However, an All-Russian Central Executive Committee decree dated 29 May 1918 instituted manning through universal military service for workers.

During the latter half of 1918, the previously formed Petrograd Border District was supplemented by those for Minsk and Orel. In each there were as many as five regions, and in each region three or four subregions. Each subregion was divided into three sectors, in which lookouts and posts were placed.

Border units took under their protection the boundary between the RSFSR and Finland as well as the Russo-German demarcation line established by the Treaty of Brest-Litovsk.

Steps were taken to ensure that the role of the Border Guard was combined and coordinated with the operational activity of state security organs. On 31 July 1918, the military council for border security formally requested All-Russian Extraordinary Commission Chairman F. E. Dzerzhinskiy to create special operational organs to restore revolutionary order in border areas. Such organs were created, and a border section was formed within the commission.

Despite the exceptionally difficult situation in the country, V. I. Lenin, the Communist Party, and the Soviet government all displayed constant concern for the Border Troops, taking care that they did not want for weapons, military equipment, or provisions.

Aggravation of the class struggle required the creation of special formations to combat armed insurgence by counterrevolutionary elements, to maintain public order, to secure communications, and to safeguard im-

portant industrial works. The 1st All-Russian Conference of Extraordinary Commissions, held 11-14 June, considered a report by I. N. Polukarov, member of the All-Russian Extraordinary Commission Collegium, on "The Need to Create a Special Corps of Troops to Uphold Soviet Authority Within the Country." The resolution adopted by the conference contained the following passage: "The corps must be composed of individuals who are well disciplined and well schooled in a military sense. They are to be exclusively of proletarian background and recommended by trade unions, party committees, or factory organizations."⁴⁰ The corps' personnel undertook to observe the strictest revolutionary discipline; to suppress mercilessly any infringement of Soviet authority, displaying unwavering firmness in its defense; and, if need be, to come to the aid of the Red Army.

In its campaign against Soviet authority, counterrevolution did not rely solely on armed force. It also utilized the food shortage that occurred as a result of the reduction of the areas under crops during World War I, the seizure of fertile regions by the White Guards and interventionists, and the overt sabotage of Soviet food policy by the rural bourgeoisie.

A decree conferring extraordinary powers on the People's Commissariat for Food was passed by the Council of People's Commissars on 9 May 1918 and ratified by the All-Russian Central Executive Committee on 13 May 1918. The decree provided for the use of armed force in the event of resistance by kulaks when grain or other foodstuffs were being collected.⁴¹

The procedure for recruiting food detachments was defined in a telegram sent by V. I. Lenin to the 2nd Provincial Congress of Soviets at Penza: "Members of the food army must be so selected that not the slightest stigma shall later attach to those who go into the countryside to grapple with a bunch of predatory kulaks to save millions of workers from starvation. . . . Only if this condition is met will it be evident to all that requisitioning grain from the kulaks is not robbery but revolutionary duty to the worker and peasant masses striving for socialism!"⁴²

As of 15 June 1918, the food detachments were about 3,000 strong, but by the end of August their strength had already reached 17,000. The chief commissar and military director responsible for forming and manning all food detachments was the Bolshevik G. M. Zusmanovich, who had been an organizer of the Red Guard in the Ukraine.

The significance of the food army was not confined to the requisitioning of surplus grain from the kulaks. The poor peasantry rallied around its detachments. Many units participated directly in the hostilities against the White Guards and interventionists.

The Directorate for Communications Security was instituted by a Council of People's Commissars decree dated 17 July 1918. Its security guard, formed on the same basis as the Red Army, was brought up to a strength of approximately 70,000.⁴³

The situation at the fronts in the Civil War called for unified leadership and for the most advantageous utilization of all components of the Armed Forces. On 19 August 1918, the Council of People's Commissars passed a decree unifying the Armed Forces of the Republic under the direction of the People's Commissariat for Military Affairs.⁴⁴ In accordance with this decree, all troops of other commissariats, including the Border Guard, were subordinated to the War Department for manning, arming, combat training, and supply purposes, and for their employment as a fighting force. This same decree integrated special troops statutorily into the Armed Forces.

The newly assimilated armed forces were restructured organizationally. The Border Guard became the Border Troops, and the border districts, regions, subregions, and sectors became border divisions, regiments, battalions, and companies respectively. An All-Russian Main Staff order dated 5 December 1918, which declared the railroads under martial law, authorized the creation of 14 regiments and 9 independent battalions of troops to guard them.

The transition to massive regular Armed Forces based on compulsory military service was a great achievement for Soviet authority. As V. I. Lenin explained at the end of August 1918, "Difficult as it was to reinstate martial law in a land where the people themselves had just stamped out a war and dismantled the old army, and difficult as it was to build a new army in the course of a bitter civil war, we have surmounted all the difficulties. A new army has been built, and victory over the Czechoslovaks, White Guards, landowners, capitalists, and kulaks is assured."⁴⁵

A decisive factor in the creation of a massive regular army was the conversion of the middle-class peasantry, many millions strong, to the side of Soviet authority. The sociopolitical base for the organizational development of the Red Army was thus broadened and strengthened.

3. Training Command Cadres. Completing the Party-Political Apparatus

Training command cadres continued to be an extremely pressing problem in the organizational development of the Red Army. Without such cadres, completion of the plan to form regular regiments, brigades, and divisions at the fronts and in the military districts was unthinkable. According to the records of the All-Russian Main Staff, the Armed Forces' requirement

for command personnel in the summer of 1918 was in excess of 55,000, and by the end of the year the requirement had increased considerably.

The 5th All-Russian Congress of Soviets played an important role in the formulation of policy on cadres during the transition to a massive regular army. The congress emphasized that "a most important aspect in building such an army is to bring up new command personnel who are wholly imbued with the ideas of the workers' and peasants' revolution."⁴⁶ The congress called upon the People's Commissariat for Military Affairs to redouble its efforts to produce officers, advocating the creation of an extensive network of schools in which capable, energetic, and courageous Red Army men could receive officer training.

The congress also advocated that wide use be made of the knowledge and experience possessed by ex-officers from the old army who were military specialists, action having been taken to legitimize their compulsory mobilization by the Soviet government.

The principal role in the production of command cadres, as in all other aspects of military organizational development, was assigned to the working class. According to V. I. Lenin, that very class was obliged to produce from its midst the greatest number of individuals capable of becoming true leaders of the Red Army.⁴⁷

The short course became the principal form of command personnel training sponsored by the military training establishments. The first 10 such courses opened in February 1918. In September and December of that year, the number of such courses reached 34 and 50, and the corresponding figures for January and March 1919 were 63 and 106.⁴⁸ Specialized courses produced command personnel for infantry, artillery, cavalry, and technical units. Naval officer courses were instituted in October 1918 but in 1919 were reorganized as a school.

The courses were attended mainly by Red Army men from the front who had combat experience and an elementary education. The duration of a course was 2 to 8 months, depending upon the type of training and the war situation. Even so, a considerable proportion of the officer candidates was returned to active service before completing the complete program. In 1918, the courses and schools produced 1,773 officers. This figure was made up as follows: infantry, 769; cavalry, 108; artillery, 553; machine gun, 89; engineering, 130; special, 124. About 68 percent of the graduates were of worker or peasant background, and 70 percent were party members. The machine gun, artillery, and armor courses had the highest percentages of worker graduates.

Besides the courses sponsored by the Main Administration for Military Educational Institutions, which was under the People's Commissariat for

Military Affairs, courses were instituted for staff officers at the front and army levels.

The Council of People's Commissars considered and approved a plan to reactivate the old Nikolayev Military Academy. Before the mutiny of the Czechoslovak Corps, the academy had been evacuated to Yekaterinburg. When the mutiny occurred, most of the academy's officers joined the mutineers. Therefore, the Soviet republic's first higher military educational institution, the General Staff Academy,* had to be organized anew.

The General Staff Academy was assigned the task of producing, in the shortest possible time, Red Army officers who had mastered the fundamentals of military science and the art of war, who were capable of directing operations at the fronts in the Civil War, and who could guide the organizational development of the Armed Forces on the new socialist principles. The academy's first enrollment consisted of 183 students, most of them party members. Among the first to graduate were V. K. Triandafillov, K. A. Meretskov, V. D. Sokolovskiy, and I. V. Tyulenev, all of whom later became eminent military commanders.

During 1918, the following Soviet academies were formed from their tsarist counterparts: the Artillery Academy, the Military Engineering Academy, the Logistics Academy, the Military Medical Academy, and the Naval Academy. In November-December 1918, instruction began at the Higher Rifle School for Command Personnel, the Higher Military Electrical Engineering School, the Armored Vehicle School, and the Cavalry School. Military political courses were instituted for future instructors at military educational institutions for all branches.

Party organizations and local soviets conducted an extensive political campaign to persuade workers, peasants, and party members to enroll in the military educational institutions. The first graduation of officer candidates took place in Petrograd on 18 September 1918. In a congratulatory telegram, V. I. Lenin emphasized that the success of the socialist revolution depended on "how energetically the workers would set about governing the state and commanding the army of the workers and the exploited, who are fighting to cast off the yoke of capital."¹

The 24th of November was celebrated nationwide as Red Officer Day. Mass meetings were held in all large towns under the slogan "Worker or Peasant, Prepare to Become a Red Officer!" At the Moscow mass meetings, speeches were made by V. I. Lenin, Ya. M. Sverdlov, N. I. Podvoyskiy, N. V. Krylenko, and other party figures.

*Now the M. V. Frunze Academy, Order of Lenin, Order of the Red Banner, Order of Suvorov.

In the summer of 1918, the command personnel consisted largely of officers promoted from the ranks during combat actions, or of Bolsheviks with at least some familiarity with military affairs. V. I. Lenin said that the Red Army "is producing from its midst thousands of officers who have completed a course at one of the new proletarian military schools, and thousands of other officers who have completed no course whatever except the harsh course of war."⁵⁰

Soviet authority appointed many former noncommissioned officers with World War I combat experience to positions of command. The first call-up of such personnel in August 1918 gave the Red Army 17,800 men.

The Armed Forces required tens of thousands of commanders versed in the art of war. Yet many of those who had received abridged officer training lacked the knowledge needed to lead a unit or formation successfully. To strengthen the fronts, the Communist Party and the Soviet government decisively implemented the Leninist policy of enlisting the services of former tsarist army specialists.

However, the influx of such specialists as volunteers fell far short of the great demand for them. Accordingly, on the strength of the decisions made by the 5th Congress of Soviets, the Council of People's Commissars passed, on 29 July 1918, the initial decree on the conscription of former line officers, medical officers, medical assistants, medical orderlies, and military officials in the Moscow, Petrograd, Nizhniy Novgorod, Arkhangel'sk, Vladimir, Vyatka, and Perm' provinces and in 51 rural districts in the Volga, Ural, and West Siberian military districts.⁵¹ The initial republic-wide call-up of medical officers and junior medical personnel was announced on 29 August. Those inducted were first enrolled in the reserve, being put on active service after attestation.

The majority of former officers inducted into the Armed Forces of the RSFSR served Soviet authority honorably and conscientiously. Much credit for this was due to the Communist Party, which did constant political work among the specialists from the old army, indoctrinating them in the spirit of socialism and the dictatorship of the proletariat.

While advocating accelerated induction of former army officers into the Soviet Armed Forces as military specialists, V. I. Lenin insisted that party and military organs keep such specialists under vigilant surveillance and resolutely stop any attempt on their part to commit sabotage or other traitorous acts. At the same time, V. I. Lenin taught that those military specialists who served honorably should be supported by higher authority and should be treated with solicitude and communist courtesy. When former army officers became Red Army commanders, their authority among the troops was to be upheld by higher authority, and respect for them was to be inculcated in Red Army men.

Meeting with eminent military specialists, V. I. Lenin sought advice from them and helped many of them. M. D. Bonch-Bruyevich once remarked that the question of "where to appoint a former general turned military specialist, and for what duties, was willingly and thoughtfully resolved by Vladimir Il'ich."²

Building a massive regular Red Army and increasing its combat efficiency were inseparable from strengthening the party-political apparatus. Side by side with the command cadres, this apparatus was a strong organizing force in the organizational development of the socialist army. During the latter half of 1918 and the early part of 1919, the basic elements of the party-political apparatus came into being. These elements were the military commissars, the political organs, and the network of Army and Navy party organizations.

The military commissars, who emerged during the first days of Soviet authority, were given legal sanction by the 5th Congress of Soviets, which pronounced the following: "The military commissar is the guardian of that tight and inviolable bond which exists between the Red Army and the workers' and peasants' regime as a whole. The military commissar is entrusted with the fate of the military. It is therefore necessary that appointees to military commissar posts be impeccable revolutionaries and staunch fighters for the cause of the proletariat and the poor peasantry."³

During the most trying period of the transition from voluntary to compulsory military service, and from assorted detachments to strictly disciplined regular units, the military commissars made an inestimable contribution to the creation of a firm foundation for the regular Armed Forces. By the end of 1918, the military commissars had encompassed within their sphere of influence all troop units and formations of the Red Army. In December, approximately 7,000 commissars were at work in the Army and Navy.

V. I. Lenin and the party's Central Committee saw to it that regular Red Army units, primarily those on decisive fronts, were seeded with party members who had been workers at such industrial centers as Petrograd, Moscow, and Ivanovo-Voznesensk, where the seasoned proletarian party cadres were concentrated. In December 1918, the Army and Navy had about 50,000 party members in all, spread among 1,500 party cells.⁴ An idea of the growth of party ranks may be obtained from data on the 4th Army of the Eastern Front. Whereas at the end of June there were 400 members and 300 sympathizers, in September these numbered 988 and 1,500 respectively. By the middle of October, this army had 1,357 registered party members.⁵ Despite the fact that during the latter half of 1918 the party, nationwide, was low in numbers (less than 300,000), it sent

its most talented members to the Red Army, seeing this as the best way to increase its strength.

On 25 October 1918, the Central Committee of the RKP(b) passed a resolution on party work in the Red Army. The resolution defined the role and missions of Army party organizations under the new conditions. Party organizations were required to intensify agitation and propaganda work among personnel and, in particular, to cultivate communist awareness and discipline among Red Army men, mobilizing them to accomplish their combat missions.⁵⁶

In accordance with this resolution, the first instructions to party cells in the Red Army were drafted in December 1918. This draft was scrutinized by a commission consisting of Ya. M. Sverdlov, J. V. Stalin, I. N. Smirnov, and K. K. Yurenev. It was then approved by the party's Central Committee and published in the press in January 1919.

The instructions obliged party cells to implement resolutions issued by the leading party organs, to conduct propaganda, agitation, and cultural and educational work among the Red Army men, to combat violations of party discipline, and to help the commissar and commander maintain a high level of military discipline. Party members were to set an example of selfless courage and valor in battle, and to display fortitude in enduring the hardships and privations of combat.

By precisely defining the tasks of the party cells and of each party member, and by focusing attention on indoctrinating the Red Army man to defend the socialist Fatherland, accept iron discipline, and believe selflessly in combat, the instructions strengthened the leading role of the party in the Soviet Armed Forces.

The development of the most suitable organizational forms for the direction of party organizations and all party-political work in the Armed Forces continued. Everywhere party organizations began to be created in newly formed units. At first, their activity was directed by the local party organs. However, as the fronts lengthened and the number of men under arms increased, the local party organs could no longer provide the Red Army's party cells with sound, uninterrupted direction. Such cells not infrequently lost touch with the local committees during hostilities. Nor could the military commissars handle all the questions on political indoctrination and party work. Under these circumstances, the Armed Forces had to have additional party organs that would ensure continuous direction of party cells and party-political work among personnel during combat actions. Political sections were created to meet this need.

The first political sections appeared in the summer of 1918 on the Eastern Front and in the fall of that year in the 10th Army on the

Southern Front." By the end of the year, they existed on all fronts, in almost all armies, and in many front-line divisions. The activities of these political sections were under the immediate direction of the Political Section under the Revolutionary Military Council of the Republic, which had been created by an RKP(b) Central Committee decision on 2 October.

Steps were taken to intensify political work throughout the Armed Forces, and to centralize its direction. Until November 1918, the Revolutionary Military Council of the Republic, the Higher Military Inspectorate, and the operations department of the People's Commissariat for Military Affairs had separate political sections. An RKP(b) Central Committee instruction issued in November merged these political sections with the All-Russian Bureau for Military Commissars, which became the sole directing organ for party-political work in all units, establishments, and institutions of the Red Army and Navy.

The functions of political organs were completely defined in a statute on the political sections of the revolutionary military councils of fronts and armies. This statute was approved by the Revolutionary Military Council of the Republic on 5 December 1918 and later ratified by the Central Committee of the RKP(b). The statute explained that political sections were being established "to conduct political (party) and cultural and educational work not only within the operational Red Army but also among the population at and near the fronts. . . ." In an order dated 4 February 1919, the council defined the organizational structure and missions for political sections at the front, army, and division levels.

The creation of political sections contributed considerably to the consolidation of the Communist Party's leading role in the Red Army. These sections successfully combined administrative and party functions.

The political organs created at V. I. Lenin's bidding became active transmitters of the Communist Party's policy and ideology in the Red Army. Speaking of the reasons for the success of the party and the Soviet government in military organizational development, V. I. Lenin indicated that into this domain "were sent more communists, more workers and peasants, and wider use was made of political sections, so that, in short, the impact of the progressive workers and peasants on the entire military apparatus was broader, deeper, and more systematic."

The party-political apparatus was also strengthened in the Border Troops. The All-Russian Bureau for Military Commissars appointed more than 300 military commissars to the border districts. They supervised the political indoctrination of border personnel, led the campaign to increase the combat efficiency of units, and exercised control over the work of military specialists. A military-political inspectorate formed in September 1918 under the Main Border Guard Administration was, in

effect, the first political organ within the Border Troops. Party cells played an important role in forming border units. Such cells were augmented by admitting the best soldiers and officers into the party, as well as by special party mobilizations. Party-political work improved the performance of border personnel in routine duties and in combat, and increased their ideological and political awareness.

Political organs and party cells did an immense amount of political indoctrination and educational work among military personnel. The Communist Party made substantial monetary appropriations for this purpose, despite the difficulties posed by the Civil War. Political sections published their own newspapers, appeals, and leaflets. Merely during October 1918, the troops of the North Caucasian Military District received about 160,000 newspapers and 66,000 pamphlets and appeals. From mid-October 1918 to the end of December 1918, the 3rd Army's political section distributed about 1,250,000 newspapers and 120,000 pamphlets. The Southern Front's political section dispatched 100,000 newspapers daily.

The centrally directed, widely ramified network of political sections and party cells was one of the most distinctive features of the new revolutionary army. The constant concern to strengthen the political organs organizationally and to increase their ideological influence on the Red Army's soldiery became an extremely important trend in the organizational development of the Armed Forces of our socialist state.

Steadfastly implementing the Communist Party's policy, the political organs, military commissars, party cells, and all party members mobilized personnel to inflict a crushing defeat on the enemies of the Soviet republic. As the influence of its promoters on the rank and file of the Red Army increased, party-political work was transformed into a new, powerful, unprecedented weapon and an important source of the Red Army's moral and political superiority over the combined forces of counterrevolution.

A special place in party-political work was assigned to propaganda and agitation, which included such activities as delivering reports and lectures, reading aloud from newspapers, giving lessons on political affairs, and holding discussions with groups and individuals. These activities were used to explain the goals of the war and the measures adopted by the Communist Party and the Soviet government. They were also used to inculcate in personnel a keen offensive spirit. The most widespread and most readily understood form of political agitation was always the mass meeting, which was usually devoted to a current event or to the immediate combat mission.

Great importance was attached not only to the political indoctrination of personnel but also to military indoctrination and to the inculcation of iron discipline in the Army and Navy. Toward the end of 1918, V. I. Lenin

heralded as a great triumph in military development the advent of a new discipline in the Red Army, based not on the private soldier's fear and degradation but on his acute awareness of his duty to defend the socialist Fatherland. "We have an army," V. I. Lenin said with pride. "It has a new discipline. This discipline is maintained by the military commissars, by the party cells, and by the political workers, who have gone to the front in the hundreds of thousands and have explained to the workers and peasants what the war is all about."⁶⁰

The introduction of new regulations was instrumental in maintaining a high level of discipline and organization throughout the Red Army and in improving the military indoctrination of its men. At the outset, recourse was had to the old army regulations, suitably amended, but the People's Commissariat for Military Affairs was instructed "to retain only those clauses and items that did not run counter to the spirit of army organization on the bases laid down by decrees and orders from the workers' and peasants' government."⁶¹ By an order from the People's Commissariat for Military Affairs dated 18 July 1918, commissions were formed to redraft the old regulations and to draft new ones "to reflect the requirements of the Army's new structure and of modern military equipment."⁶²

New regulations were ratified by the All-Russian Central Executive Committee as follows: in November 1918, Internal Service Regulations and Garrison Service Regulations; in December 1918, Field Service Regulations (Part 1, Maneuver Warfare); and in January 1919, Drill and Disciplinary Regulations for the RKKA. Ratification of these regulations by the supreme organ of the Soviet state gave them the force of law and made them highly authoritative.

The new regulations reflected the new features of the Soviet Armed Forces. For example, the Internal Service Regulations expected each serviceman to bear his rank with honor; to study military affairs diligently and perform his duties conscientiously; to conform strictly and rigorously to revolutionary discipline; to cherish as the apple of his eye public and military property, safeguarding it from deterioration and misappropriation; to obey without question the orders of his commanders and commissars; to direct all his thoughts and deeds toward the great goal of liberating the workers; to be ready at the first call to defend his Motherland; and to spare neither his strength nor his very life in the campaign for socialism.

The relations between officers and men were to be based on mutual respect, community of class interests, and singleness of purpose in the struggle to liberate the workers. While the Internal Service Regulations expected the serviceman to obey the orders of his commander or chief

without question, they required the latter to respect the honor and dignity of his subordinates.

In the updated Disciplinary Regulations, the concept of "military discipline" was defined for the first time as "good order in the Workers' and Peasants' Red Army as established by laws of the Russian Socialist Federal Soviet Republic." Emphasis was placed on the factor of social awareness in the RKKA's system of military discipline. Such discipline was based on the serviceman's abidance by Soviet laws and on his selfless dedication to the socialist order.

The Disciplinary Regulations defined the serviceman's basic obligations: to abide by Soviet law; to carry out his officers' and commissars' instructions to the letter; and to perform his prescribed duties consciously and conscientiously. The regulations defined the incentives and disciplinary punishments which could be meted out to servicemen, and they gave great disciplinary powers to the Red Army Comrades' Courts.

The regulations governed the entire life and activity of the Red Army and underlay its organization, routine, and discipline. They constituted an important step in the Red Army's organizational development and in the elaboration of principles for the training and indoctrination of its personnel.

The end of 1918 saw the publication of *Knizhka krasnoarmeytsa* [The Red Army Man's Booklet], which bore the approval of Council of People's Commissars Chairman V. I. Lenin and All-Russian Central Executive Committee Chairman Ya. M. Sverdlov. This unique service booklet recounted the basic rights and obligations of the Red Army man and explained the norms for his behavior. A copy of the booklet was issued to every soldier in the Red Army. The booklet contained the main tenets of the Constitution of the RSFSR, the wording of the recruit's Solemn Promise, and those governmental decrees and orders from the People's Commissariat for Military Affairs that concerned the Red Army man's rights and obligations. It also set forth what was expected of him in combat, in the style of *Nauka pobezhdai* [The Science of Victory], by the great Russian military leader A. V. Suvorov.

The booklet explained, in a popular style, the Red Army's historic role, its fundamental difference from the capitalist armies, and the mission of its soldiers. The offensive and decisive character of Red Army combat actions was emphasized. The booklet explained what was demanded of the Soviet soldier: he must courageously surmount all the challenges of life in the field; he must constantly add to his professional knowledge; and he must master the use of his weapon and take good care of it. *Knizhka krasnoarmeytsa*, containing the basics of military indoctrination and training, played no small part in forming the Red Army man's high moral profile.

As early as the summer of 1918, a single emblem—an enameled red star—was introduced for all ranks of the Red Army. The uniform of the old Russian army, without the shoulder boards and other insignia, was made mandatory for the Red Army pending design of its own.⁶³

The introduction of individual and group awards greatly improved the Red Army's morale and combat efficiency. In an order dated 3 August 1918, the People's Commissariat for Military Affairs announced the introduction of a military award bestowed by the Soviet republic (the All-Russian Central Executive Committee Honorary Red Banner) on regiments and companies that distinguished themselves in combat. By a decree dated 16 September 1918, the All-Russian Central Executive Committee introduced the Order of the Red Banner of the RSFSR, which could be conferred on individuals for exceptional bravery in battle. A statute was enacted extending eligibility for this order to military units.

Thus, with the transition to a regular Red Army, the principal elements whereby the party could pursue its policy in the Armed Forces took shape. These elements included the command cadres, revolutionary military councils, military commissars, political organs, and party cells. At V. I. Lenin's suggestion, on 25 December 1918 the RKP(b) Central Committee passed the resolution "On Policy Formulation in the War Department," in which the principle of perpetual party direction of the Soviet Armed Forces was established once and for all.

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During the latter half of 1918, one of the most important missions of military organizational development was the creation of a firm foundation for the planned massive regular army of the socialist state.

As a result of measures implemented by the Communist Party and the Soviet government, the Red Army was transformed into a streamlined military organization with unified tables of organization and equipment; with a precise, harmoniously coordinated centralized apparatus for exercising control from the top downward; and with common organs for organizing, indoctrinating, and supplying the troops in the capital and in the field. A wealth of accrued practical experience made it possible to work out principles of military organizational development for the new army and to furnish the Soviet republic with regular Armed Forces capable of defending her great revolutionary gains.

Notes

1. Lenin, XXXIX, 343.

2. *Soviet Decrees*, II, 334.

3. *Pravda*, 1 June 1918.
4. *Soviet Decrees*, II, 554.
5. *Ibid.*, 542.
6. *Ibid.*, 543.
7. *Ibid.*, 544.
8. Lenin, XXXVI, 492.
9. Lenin, XXXVII, 39.
10. *Army Archives*, f. 3, op. 1, d. 45, l. 50-51.
11. Based on *Army Archives*, f. 6, op. 4, d. 953, l. 63, 97, 98, 100, 101, 140, 141, 183, 257-71.
12. *Soviet Decrees*, III, 108.
13. From the *History of the Civil War*, I, 220.
14. Lenin, XXXVII, 99.
15. *Soviet Decrees*, III, 515-16.
16. *Istoricheskiy arkhiv* [History Archives], 1958, No. 1, pp. 42, 63, 64.
17. *Army Archives*, f. 4, op. 2, d. 37, l. 21-30.
18. Shatagin, p. 120.
19. *Army Archives*, f. 11, op. 5, d. 940, l. 6.
20. See Lenin, XI, 77.
21. *October Revolution Archives*, f. 1235, op. 93, d. 112, l. 12.
22. *Istoriya otechestvennoy artillerii* [History of Soviet Artillery] (Moscow, 1963), III, Bk. VII, 102.
23. *Tyl Sovetskoy Armii* [Soviet Army Rear Services] (Moscow, 1968), p. 18.
24. *Army Archives*, f. 6, op. 4, d. 53, l. 28-32.
25. *Army Archives*, f. 5, op. 1, d. 53, l. 60-61.
26. *Ibid.*, l. 100-101.
27. *Army Archives*, f. 6, op. 4, d. 953, l. 60, 61, 73, 74, 100, 101.
28. From the *History of the Civil War*, I, 367.
29. Lenin, XXXVII, 96.
30. From the *History of the Civil War*, I, 176.
31. *Istoriya voyn i voyennogo iskusstva* [A History of Wars and the Art of War] (Moscow, 1970), p. 67.
32. *Fifty Years of the Armed Forces*, p. 58.
33. Shatagin, p. 144.
34. *Inzhenernyye voyska v boyakh za Sovetskuyu Rodinu* [Soviet Engineer Troops in Defense of Their Homeland] (Moscow, 1970), pp. 20-21.
35. F. I. Zharov, *Podvigi krasnykh letchikov* [Exploits of Red Airmen] (Moscow, 1963), pp. 19-20.
36. *Army Archives*, f. 33928, op. 2, d. 31, l. 94.
37. *Army Archives*, f. 30, op. 2, d. 86, l. 82-84.
38. *Baltiyskiye moryaki v bor'be za vlast' Sovetov (noyabr' 1917-dekabr' 1918)* [Baltic Fleet Sailors in the Struggle for Soviet Power (November 1917-December 1918)] (Leningrad, 1968), pp. 252-54.
39. *Soviet Decrees*, II, 516-17.
40. *Internal Troops of the Soviet Republic*, p. 39.
41. *Soviet Decrees*, II, 266.
42. Lenin, XXXVI, 431.
43. *Soviet Decrees*, III, 42-44.
44. *Ibid.*, pp. 224-26.
45. Lenin, XXXVII, 75-76.
46. *Soviet Decrees*, II, 543.
47. See Lenin, XXXVII, 382.
48. *Problems of History*, p. 26; *Journal of Military History*, 1965, No. 4, p. 4.
49. Lenin, XXXVII, 88.
50. Lenin, XXXVII, 124.
51. *Soviet Decrees*, III, 111.

52. M. D. Bonch-Bruyevich, *Vsya vlast' Sovetam* [All Power to the Soviets] (Moscow, 1964), p. 272.
53. *Soviet Decrees*, 11, 543.
54. *Fifty Years of the Armed Forces*, p. 62.
55. *Tsentral'nyy partiynyy arkhiv Instituta marksizma-leninizma pri TsK KPSS* [Central Party Archives of the Marxism-Leninism Institute Under the CPSU Central Committee], f. 17, op. 3, d. 50, l. 58. [Hereafter cited as *Marxism-Leninism Institute Archives—U.S. Ed.*]
56. *Perepiska Sekretariata TsK RKP(b) s mestnymi partiynymi organizatsiyami (avgust-oktyabr' 1918 g.). Sbornik dokumentov* [Correspondence Between the Secretariat of the Central Committee of the Russian Communist Party (of Bolsheviks) and Local Party Organizations (August-October 1918): Collected Documents] (Moscow, 1969), p. 74.
57. *Army Archives*, f. 186, op. 2, d. 594, l. 2, 3.
58. *Partiyno-politicheskaya rabota v Krasnoy Armii (aprel' 1918-fevral' 1919). Dokumenty* [Party-Political Work in the Red Army (April 1918-February 1919): Documents] (Moscow, 1961), pp. 92-93.
59. Lenin, XXXIX, 428.
60. Lenin, XXXVII, 382.
61. Korablev, p. 239.
62. *Army Archives*, f. 33988, op. 1, d. 2, l. 73.
63. *Army Archives*, f. 5, op. 1, d. 4, l. 2.

Chapter 3. The Culmination of the Organizational Development of a Massive Regular Red Army

(March 1919-December 1920)

1. The 8th RKP(b) Congress and the Principles of the Organizational Development of the Red Army

By the spring of 1919, the position of the young Soviet republic had improved considerably. Much of the Don region, the Ukraine, Belorussia, and the Baltic area had been liberated. The first attempts of the Entente imperialists to overthrow the workers' and peasants' authority in Russia had failed. The Soviet regime had proven its strength.

Socialism acquired greater attractive force in the international communist and workers' movement. The 1st Congress of the Communist International, held in Moscow in March 1919, set the stage for the ideological and organizational unification of the working classes of all countries under the slogan of a struggle for the dictatorship of the proletariat.

Nonetheless, the situation remained difficult and tense for the Republic of the Soviets. The imperialists were striving to annihilate the world's first socialist state. A major role in this was now assumed by the forces of internal counterrevolution. The aggressive aspirations of those states that bordered on Russia from the west and northwest were supported in every possible way.

The Red Army continued to suffer a shortage of arms and rations, and it lacked command cadres. The party's aims in military organizational development were attacked by its internal opposition factions: the "left-wing communists" and Trotskyites.

In this situation, in order that the organizational development of a massive regular army could be completed, it was of paramount importance

that the party reformulate its military policy in terms of the transitional period from capitalism to socialism.

These problems, which had produced an imminent crisis, were settled by the 8th RKP(b) Congress, held in Moscow on 18-23 March 1919. Military affairs featured prominently in the Central Committee's report, in speeches by V. I. Lenin and various delegates, in the party program adopted by the congress, and in its resolutions. Of particular importance was the fact that the fundamental principles for the organizational development of a socialist army were set forth in a special resolution on military problems.

The RKP(b) program, which charted the party's general political course throughout the entire historical period of the struggle for socialism, defined the aims and nature of the Red Army as a class instrument for the dictatorship of the proletariat, which was called upon to defend the gains of the Great October Socialist Revolution. The program emphasized that the Red Army, in contrast to its counterparts in the exploiting states, was an openly class-oriented army, was recruited from the workers and poorest peasants, and was built in indissoluble association with the broad mass of working people, whose sympathy and support were the source of its strength and inflexible will to win. The RKP(b) program sought to teach the general public the fundamentals of military affairs, to organize troop training and indoctrination on socialist principles, and to strengthen the command personnel and the party-political apparatus as the binding elements of the new army.

The dominant idea in the second RKP(b) program was the concept of the Communist Party's leading and directing role in Soviet society and in the organizational development and strengthening of the Red Army. This concept was comprehensively substantiated in a resolution on military problems. This resolution contained the following passage: "The revolutionary nature of the Army is determined primarily by the character of the Soviet regime, which creates this army and assigns its goal, thus transforming it into its own weapon. On the other hand, the correspondence of this weapon to the Soviet regime is ensured by the class composition of the Army's rank and file, by the organization of military commissars and party cells, and finally, by the overall Soviet and party guidance of Army life and activity."

Sanctioned in the extremely important resolutions of the congress were the fundamental sociopolitical principles that underlay the organizational development of the Red Army as the army of the October Revolution, as the army of the working masses, and as a radical departure from the armies of the exploiting states. The resolutions reflected the natural advent and development of the Soviet Armed Forces, besides reflecting their nature and purpose, the indissolubility of their bond with the people, and

the solid foundations of domestic life. They were the result of collective creative activity by the party's Central Committee under the chairmanship of V. I. Lenin.

For the first time in history, an army had been built with the express intention of defending the revolutionary gains and freedom of the workers, while preserving and consolidating world peace. This army based its development and strength on the union of the urban working class with the laboring peasantry, as well as on friendship and brotherhood between the peoples inhabiting the Land of the Soviets. It emerged as an army conscious of its noble international duty.

Soviet authority, being a polity and a class embodiment of the union of workers and peasants, created the Soviet Armed Forces in its own image. In contrast to the capitalist armies, which are the bulwark of the exploiting classes, the instrument whereby peoples are enslaved, and the force used for imperialist aggression, the Red Army has had a working-class profile from the first days of its existence. The Red Army has defended the gains of the proletarian revolution, and has served the cause of the freedom and independence of nations and the cause of world peace. It has developed and gained strength from an ever stronger socialist foundation, a Soviet social order and state regime, and Marxist-Leninist ideology. A resolution of the 8th RKP(b) Congress read as follows: ". . . The historic reason for the Red Army's existence is that it serves the proletariat and the poor peasantry as an instrument of socialist self-defense. . . ."

The organizational development of the Red Army was made to conform to the nature of the socialist order and its defense needs by a number of political, administrative, and indoctrination measures. The most important of these, according to the 8th Congress, were as follows: frankly class-oriented recruitment; unification of party and state direction of military development; provision of a ramified network of political organs and party organizations; selection and placement of command and military supervisory personnel on professional and political qualities; and inculcation of political awareness in the Red Army's rank and file.

The congress devoted special attention to strengthening the bond between the Army and the people. V. I. Lenin emphasized that the socialist revolution had engendered an army which "was not alienated from the people, like the old standing army, but was associated with them in the closest manner. . . ."

Of paramount importance for the unity of the Army and the people was preserving and strengthening the leading role of the working class in military organizational development. The party followed V. I. Lenin's advice that only the proletariat "can form the nucleus of a powerful revolutionary army, powerful in its ideals, in its discipline, in its organization,

and in its valor. . . .”⁴ In its resolution on the attitude to be adopted toward the middle-class peasantry, the 8th Congress emphasized the importance of strengthening the military-political alliance of the workers and peasants in completing the organizational development of a massive regular army.

Among the principles underlying the organizational development of the Red Army, the 8th Congress numbered its fidelity to the international solidarity of working people. In one of its resolutions, the congress indicated that as the Red Army became stronger, “it could safeguard not only the socialist community against attacks that might be mounted by existing imperialist states but could also give decisive support to the proletariat of such states in the campaign against imperialism.”⁵

The 8th RKP(b) Congress proceeded from the Leninist tenet that the socialist army, as a component of Soviet society, is under the constant and undivided direction of the Communist Party and its Central Committee. Summarizing the party’s participation in military affairs, V. I. Lenin indicated that the Central Committee discussed all questions of strategy routinely, passing its numerous military decisions through the All-Russian Central Executive Committee and the Council of People’s Commissars. “Had there not been a tremendous concerted effort . . . we could never have done what we did, nor could we have accomplished our combat missions.”⁶

Accumulated experience shows that the Communist Party’s direction of the Armed Forces is in natural conformity with Soviet military organizational development. This is a result of the leading role which the party plays in the life of society, a result of the nature and specific character of the Armed Forces as an instrument of state policy, and a result of the need to unite all of the country’s military efforts in the face of imperialism. V. I. Lenin remarked at the 8th Congress, “. . . Our principal protector, the Red Army, . . . will find in every party member the warmest of friends and the most selflessly dedicated assistant, colleague, or leader.”⁷

The 8th RKP(b) Congress proceeded from the premise that questions of military organizational development in the Soviet republic must be resolved in precise conformity with the party’s policy and program, and on the basis of directives and instructions formulated in resolutions adopted by congresses and conferences, by plenary sessions of the Central Committee, and by its Politburo. Somewhat later, V. I. Lenin expressed these sentiments more concisely, saying that in the activity of all Soviet state organs, including military ones, “the supremacy of Communist Party policy must be expressly recognized.”⁸ Strict implementation of party policy is necessary to effectively conduct the complex and diverse activities in military organizational development, particularly in the sphere concerned

with increasing the Army's fighting strength and the defensive capability of the country as a whole.

V. I. Lenin pointed out that not a single important political or administrative decision was made by any state institution without recourse to Central Committee guidelines.⁹ None other than the Central Committee planned the main trends in the development of the Armed Forces' equipment, sought to improve their organizational structure, selected and placed their top-ranking officers, and took care to improve the vigilance, combat efficiency, consciousness, and discipline of their men. Moreover, the Central Committee coordinated the work of party, state, and military machinery. All questions of military organizational development were resolved in conformity with the demands posed by social development, by the conduct of war, and by the development of military affairs. The party and its Central Committee constantly monitored compliance with their directives and instructions.

The Communist Party's direction of the Red Army was also reflected in the fact that a formidable party-political apparatus functioned intensively in its midst. This apparatus consisted of military commissars, political sections, and party cells. The 8th Congress emphasized that "a military commissar's work can be fully effective only if it has the support of his unit's cell of soldier party members."¹⁰ The congress considered purposeful, efficient party-political work to be an important condition for solving a very wide range of problems in the new army's organizational development and effort to inculcate moral staunchness and exemplary conduct in its personnel.

A special place in the proceedings of the 8th RKP(b) Congress was devoted to measures for intensifying political indoctrination work among Red Army and Navy men. A resolution on military affairs stated the following: "... To approximate the barrack to a military school is to make it not only a place of purely military training but a seat of general education and political indoctrination as well."¹¹ Accomplishment of this mission demanded further strengthening of the ideological and administrative activity of military commissars, political organs, and party cells. The following practical measures were planned for prompt implementation: distribute Army and Navy party members systematically among military and naval units; shift the focus of intraparty work from the political sections of fronts to those at the army and division levels; enact a statute defining the powers and duties of military commissars, political organs, and party cells; and abolish the All-Russian Bureau for Military Commissars, creating in its place a Political Section under the Revolutionary Military Council of the Republic, headed by an RKP(b) Central Committee member. The welcoming speech at the 8th RKP(b) Congress contained the following exhortation: "Party members on active service in the Red Army must always serve at the forward posts, in the most crucial

and dangerous locations. Party members will increase their communist educational work among the troops tenfold."¹²

Proceeding from the general sociopolitical principles underlying the organizational development of the Red Army, the 8th RKP(b) Congress defined the principles that were to govern its organization and combat training. The congress emphasized that the Red Army "must be trained, armed, and organized in accordance with the last word in military science."¹³ To achieve this, it was necessary, first of all, to restore the country's industrial potential. Having done this, it would then be possible, on the basis of a general economic upsurge, to assure the increased supply of military equipment. The congress spoke out in favor of a regular army with regular combat training and approved the adoption of all-service regulations. The congress aimed for harmonious and proportional development of all services and branches and for elaboration of the most effective methods for their employment.

The congress singled out the training and indoctrination of command cadres as an extremely important aspect of the Red Army's organizational development, indicating that these cadres should be predominantly from the workers and progressive peasants. At the same time, the congress strongly advocated that wide use be made of military specialists from the old army. The congress laid particular emphasis on the need to select them carefully, monitor their work, and combat treacherous and provocative elements in their midst.

Lenin's course on the Red Army's organizational development was contested at the congress by the so-called "military opposition," a faction within the party's "left-wing communists." This faction, together with Trotsky's supporters, tried to defend mistaken positions that ran counter to the general party policy on military organizational development. For example, the opposition asserted that the party's Central Committee neither directed the War Department nor formulated plans for the combat actions of fronts and armies. This was tantamount to a denial of the party's leading role in the organizational development of the Armed Forces.

A bitter dispute arose over military discipline. Not understanding the radical difference between the new revolutionary discipline and that of the tsarist army, the "military opposition" regarded the strict regimentation of Soviet servicemen and the mandatory unquestioning obedience and monitoring as a return to the past. Criticizing the content of the recently authorized All-Service Regulations, some members of the opposition felt moved to assert that the customs of autocracy and serfdom were being established in the Red Army.

V. I. Lenin firmly rebuked the "military opposition" during the congress, saying that to agree with its views was to saw off the branch that the organizational development of the new army rested upon. A majority of the delegates to the congress resolutely condemned the views held by the opposition, which was, in essence, advocating the partisan movement as the principal type of military organization for the Soviet republic.

The decisions of the 8th RKP(b) Congress enriched Marxist-Leninist teaching on war and the army with theoretical generalizations of the experience gained in the defense of the Soviet state and in the organizational development and strengthening of its Armed Forces. These decisions defined scientifically the practical steps to be taken to increase the military power of the Soviet republic, and they outlined a coherent program of party activity for the organizational development and further strengthening of the Red Army.

2. Strengthening the Regular Army

When the 8th RKP(b) Congress was over, the party began the big task of implementing its decisions. The sociopolitical, material, and spiritual resources of the Soviet state were further mobilized to build a regular army. Special attention was paid to improving the executive function of the War Department, to strengthening the Army's party organizations, and to training reserves, mainly within the system of universal military training. The Red Army was to be turned into a numerically strong armed force of the workers' and peasants' state.

The foundation of the Red Army was the working class. By the end of the Civil War there were 630,000 to 760,000 workers in its ranks. However, the troops consisted predominantly of middle-class peasants. The course adopted by the 8th RKP(b) Congress to form a close alliance with the middle-class peasantry broadened the Red Army's social-class manning base considerably. During the Civil War more than 4 million working peasants poured into the Red Army's ranks. "... We won over an unprecedented proportion of the people to an intelligent attitude toward the war and to active participation in it," noted V. I. Lenin. "Every last worker, whether a party member or not, sympathized with and understood the war. The same could be said of nonparty peasants (and the peasants were, by and large, nonparty). Such support of hostilities has never been forthcoming in any political regime even to a tenth the extent that it occurred under Soviet authority. This is why we finally beat a strong enemy.""

As fighting in the Civil War intensified, it became urgent that all Soviet republics present a united front and that their military and material

resources be combined. Attainment of these goals was made easier by the Communist Party's Leninist ethnic policy.

Right after the Great October Socialist Revolution, the fraternal Soviet republics formed their own national armies. At that time it was not advantageous to build a single multinational Red Army. Each republic was granted independence and the right to have its own national army. Under the circumstances, this was an unavoidable step toward political and military unity.

By mid-1919, the Ukrainian, Belorussian-Lithuanian, Latvian, and Estonian Red armies had been formed by the revolutionary masses, whose efforts were directed by the RKP(b). These armies fought against a common enemy on the Civil War fronts side by side with the Red Army of the Russian Federation.

The commissariats for military affairs, the revolutionary military councils, and the Army headquarters of each republic were subordinated operationally to the Revolutionary Military Council of the Republic and to the commander in chief of all Armed Forces. However, this initial form of military cooperation failed to provide the necessary coordination between the Soviet republics in the struggle against imperialist intervention and the White Guard armies of Kolchak and Denikin. Combat unity between the fraternal republics had to be improved. Men and equipment had to be combined and used in the most rational manner possible to crush domestic and foreign counterrevolution.

The question of closer military unity between all Soviet republics was discussed at a plenary session of the RKP(b) Central Committee on 4 May 1919. A draft Central Committee directive on military unity made special mention that prerequisites for victory in the Civil War were a unified military command and strict centralization in the allocation of all human and material resources of the socialist republics. This entailed the following measures: unify all Red Army supply under the sole direction of the Defense Council and other central establishments of the RSFSR; unify rail transport and control of the railroad network throughout the fraternal socialist republics under the direction and control of the People's Commissariat for Communications of the RSFSR; transform the Red Army supply organs and the separate commissariats for communications in each fraternal republic into sections of their RSFSR counterparts; and render void all decrees on Red Army supply and rail transport or control at variance with such edicts or decrees authorized for the RSFSR.¹¹

The Leninist concept of a military and political union of independent republics found widespread and favorable response in party and soviet organs. The decisions made by these organs supported the RKP(b) Central Committee's proposals that the armed forces and material resources of the

republics should be combined and that military command should be concentrated in a single organ.

On 1 June, 1919, in accordance with an RKP(b) Central Committee Politburo decision, the All-Russian Central Executive Committee ratified the decree "On the Unification of the Soviet Socialist Republics of Russia, the Ukraine, Latvia, Lithuania, and Belorussia for the Struggle Against World Imperialism." Representatives of the republics concerned took part. The Red armies of the fraternal republics were merged. First, at the beginning of June 1919, the Revolutionary Military Council of the Republic disbanded the Ukrainian Front. Then the 12th Army of the Western Front was formed from the 1st and 3rd Ukrainian armies. The 2nd Ukrainian Army, reorganized as the 14th Army, was assigned to the Southern Front. The Army of Soviet Latvia was renamed the 15th Army of the Northern Sector of the Western Front. The Belorussian-Lithuanian Red Army, transformed into the 16th Army, became a component of the Western Front. Estonian units were included in the 7th Army.

The process of uniting the armed forces of the fraternal republics was not confined to the solution of purely military problems. The party's Central Committee had to surmount difficulties of no small proportions in dealing with the economic and cultural backwardness of the country's border regions. It was also necessary to smash the aspirations of counter-revolution to use for its own ends a legacy of previous ethnic enmity, and to overcome vestiges of bourgeois nationalism and great-power chauvinism in the ideology and psychology of the working people.

An indissoluble moral and political solidarity between the fraternal republics took shape as they fought side by side in the armed conflict against imperialism. The economic, political, and ideological prerequisites arose for the unification of these peoples into a single multinational state. Preparations for the Soviet Union's semicentennial yielded the following passage: "The military-political union formed in the course of the Civil War, the very close coordination of foreign policy, and the joint efforts to restore and develop the economy and to strengthen defensive capability all naturally contributed to the unification of diverse but equal peoples into a single socialist family."¹⁶

At each historic stage in the organizational development of the Red Army, the steps taken were largely dictated by the circumstances of the armed conflict. In the spring of 1919, the main sector of hostilities, where the fate of the Soviet republic was being decided, was the Eastern Front. Its importance was very fully and clearly defined by the Communist Party's appeal to the country's working people: "Everything For The Struggle Against Kolchak!"

On 10 April 1919, the Council of People's Commissars announced the mobilization of workers and peasants born in 1886-90 in Petrograd, Moscow, and nine central provinces. On the same day, V. I. Lenin wrote a letter to the Petrograd workers, calling upon them to mobilize all their efforts for the Eastern Front, indicating that "the fate of the revolution is being decided there."¹⁷

On 11 April 1919, RKP(b) Central Committee propositions written by V. I. Lenin about the situation on the Eastern Front were ratified by the Central Committee's Organizational Bureau. These documents defined the decisive theater of operations, and they indicated in general terms what party, soviet, and trade union organs should do to increase the Red Army's fighting strength and to improve its organization. "We can win quickly and conclusively," declared the Central Committee. "We must unleash revolutionary vigor, exerting ourselves to the utmost, and Kolchak will be promptly beaten. The Volga, the Urals, and Siberia can and must be defended and reconquered."¹⁸

On 13 April 1919, a plenary session of the party's Central Committee decided on a mass mobilization of party members into the Red Army. In the front zone, 50 percent of party organization personnel were liable to be called up; and elsewhere, 10-20 percent. On 30 April, the All-Union Central Trade Union Council carried a motion to mobilize 10 percent of all trade union members.¹⁹

These decisions of the central party and trade union organs brought feverish activity in party and trade union organizations throughout the country. Mobilization commissions were formed, as were assistance committees for the Red Army. To help local party organizations, the Central Committee sent its plenipotentiaries, among whom were K. S. Yeremeyev, N. V. Krylenko, A. V. Lunacharskiy, V. N. Podbel'skiy, N. A. Semashko, and Ye. M. Yaroslavskiy.

As a result of the great effort made by party and soviet organs, as well as by trade union and Young Communist League organizations, 877,000 men were mobilized, 110,000 of whom were sent to the Eastern Front.²⁰

Owing to the steps taken by the Communist Party, the Eastern Front was able to mount a number of large-scale operations against Kolchak's forces during the summer of 1919. In a letter addressed to workers and peasants about the victory over Kolchak, V. I. Lenin generalized the results and lessons of the campaign on the Eastern Front. He pointed out the main lessons to be learned from the enemy's defeat. The first and foremost of these lessons was that a powerful Red Army was needed to defend the Soviet republic. V. I. Lenin called upon the party and nation "to dedicate all their strength, resources, and skills to building a strong Red Army."²¹

The mobilization program conducted during the struggle against Denikin had as its theme the solidarity of the Army and the people. A plenary session of the RKP(b) Central Committee took place on 3-4 July 1919. The measures that emerged from its resolutions were conveyed to all party organizations in a Central Committee letter with the heading "Everything For The Struggle Against Denikin!" The Central Committee called upon party organizations to turn the country into a unified armed camp, not in words but in fact, and to put all departments and institutions on a war footing. The letter was imbued with concern about the training of Red Army reinforcements dedicated to the revolution. All party organizations were instructed to tell the public the truth about Kolchak and Denikin, to intensify indoctrination work among draftees, and to see to it that the troops were supplied with all essentials.

Fresh detachments of workers and peasants were called to the Southern Front. Men liable for but previously exempted from military service were reexamined, and enrolled if found fit. This gave the Army an additional 58,000 soldiers.²²

The RKP(b) Central Committee gave constant attention to strengthening the party's influence in the Red Army, especially on the Southern Front. A plenary session of the Central Committee held on 26 September 1919 authorized a "Party Week," which prompted enlisted men to join the party in considerably greater numbers. A Central Committee letter dated 30 September 1919 said that Kolchak was defeated because the Bolshevik Party sent its best forces to the Eastern Front, having knit them into an iron military organization. The Central Committee called upon the party to adopt such methods without a moment's delay.²³

The immense amount of organizational work done by the party, the soviets, and the trade unions permitted the correlation of forces on the Southern Front to be changed in the Red Army's favor. At the beginning of the operation that culminated in Denikin's defeat, the Southern Front boasted 171,600 bayonets and sabers, as against the enemy's 151,900.²⁴

In building a new army, V. I. Lenin and the Communist Party were indefatigable in their endeavor to speed to rights the manufacture of weapons and combat equipment. During the first months of 1919, due to shortages of raw material, fuel, and provisions, there was a significant drop in industrial output, including production for military purposes. For example, from January to April 1919, the combined output of the Tula and Izhevsk munitions plants fell as follows: rifles, 39,215 to 16,000; machine guns, 480 to 325; 3-inch cannons, 11 to 0; and rounds of rifle ammunition, 16,896,000 to 16,610,000. The troops suffered an acute shortage of weapons and ammunition.

At its meetings, the Defense Council repeatedly discussed the defense

production problems of providing enough fuel and raw material, raising the productivity of labor, and improving supply to the workers. On 31 March 1919, the Defense Council formed a special commission to recommend emergency measures to raise labor productivity at the Tula munitions plants. On the commission's recommendations, it was decided that party members be drafted to the plants and that the workers be issued Red Army rations. In May 1919, 3,000 apartments were allocated for new plant employees.

In July 1919, the Defense Council adopted a number of measures to increase the output of small arms from the Izhevsk and Kovrov plants, and of small-arms ammunition from the Simbirsk and Podol'sk plants. On 1 August, the Defense Council ordered the Commissariat for Labor and the Central Committee of the Metalworkers' Union to furnish these plants with the necessary work force immediately. In a telegram to the Petrograd Soviet, V. I. Lenin wrote, "It is quite clear that only 'Peter' ['Petrograd'—U.S. Ed.] can provide the workers for the small-arms ammunition plants. At all costs you must compel the Sestroretsk plant and the pipe factory to provide all the workers that are needed at once. Red tape is not merely impermissible, it is criminal, as without the ammunition we shall perish. Put all possible pressure on the enterprises, and see to it that they comply."²³

The measures adopted by the Communist Party and the Soviet government were instrumental in increasing the production of weapons and ammunition. In June 1919, the output of machine guns and rifles reached 500 and 26,300 units respectively, while 28,544,000 rounds of rifle ammunition were produced.

The central organs for the supply of the Red Army and for management of the defense industry underwent a significant reorganization. On 8 July 1919, the All-Russian Central Executive Committee established within the Revolutionary Military Council of the Republic the post of Special Army and Navy Supply Representative of the Workers' and Peasants' Defense Council. Its incumbent had authority over all supply organs of the People's Commissariat for Military and Naval Affairs, over the Extraordinary Commission for Red Army Supply, over the Central Military Procurement Section, and over all other central and local supply organs at the front and in the rear.²⁴ On 4 October 1919, the Extraordinary Commission for Red Army Supply was abolished, its functions being assumed by the special supply representative.²⁵ On 10 August 1919, by a decision of the All-Russian Central Executive Committee, the Main Administration for Red Army Supply, which managed rations and necessities, was subordinated to the People's Commissariat for Food.²⁶

On 12 September 1919 the special supply representative, aware of the need to improve the direction of the defense industry, ordered the creation

of the Council of War Industries. The council was to be headed by a collegium. The Council of War Industries was charged with setting up new plants and adapting existing ones for defense needs, allocating orders for materiel and monitoring compliance with them, and providing defense plants with fuel, raw material, and workers.

Every effort was made to restore and expand the ordnance industry. Whereas in the spring of 1919 only two of the nine existing ordnance plants were operative, by the end of the year five of them were supplying artillery to the Red Army. During the latter half of 1919, the month-by-month production of guns was as follows: 44 in July, 65 in August, 54 in September, 65 in October, 48 in November, and 58 in December, for a total of 334 guns during the 6-month period."

However, this output was not enough to meet the Red Army's requirements completely. Accordingly, the manufacture of new guns was supplemented by the repair of old ones, and a number of arsenals and ordnance repair shops were put to work making stored tsarist army artillery serviceable.

With the exception of air defense weapons, by the end of 1919 the artillery needs of 60 projected rifle divisions and 10 projected cavalry divisions had been fully met.

The capacity of the aircraft industry was increased. By March 1919, the Main Commissariat for Aviation had charge of five airframe plants, five aircraft engine plants, and one engineering plant. In 1920, as the Red Army liberated southern regions of the country, other air industry facilities came under this commissariat's control. During the war years, aircraft production plants and repair enterprises built or refitted 2,224 aircraft and more than 2,000 aircraft engines.

A Council for Labor and Defense* resolution dated 16 June 1920 put the aircraft industry's plants on an equal footing with the small-arms and ammunition plants. Moreover, 654 qualified Red Army specialists were drafted to meet shortages in the aircraft industry's plants. All blue-collar and white-collar workers of the Main Commissariat for Aviation were put on Red Army rations. A 3-months' reserve of aviation fuel and lubricants was constantly maintained for aviation purposes."

Soviet tank manufacture began at this time. In the autumn of 1919, the Council of War Industries decided to build 15 tanks on the pattern of a French Renault tank seized from the White Guards. However, this endeavor was beset by formidable difficulties: specialized plants, trained personnel, and experience in organizing production were all lacking.

*In March 1920, the Defense Council was renamed the Council for Labor and Defense.

Nonetheless, a way out of this impasse was found. The order for the tanks was divided among three enterprises as follows: the armor was cast at the Izhora plant near Petrograd; the engines were made by the Moscow Automobile Company; the manufacture of the remaining equipment was assigned to the "Krasnoye Sormovo" plant, where the tanks were to be assembled.

The prototype was completed in August 1920. It had a combat weight of 7 tons, a 34-horsepower engine, and a speed of 8.5 km/h. The tank was armed with a 37mm Hotchkiss-type cannon. The prototype passed through complete trials during 13-21 November 1920.

The Communist Party took great pains to improve the combat efficiency of the naval forces and the work of the shipyards. By an All-Russian Central Executive Committee decree dated 9 July 1919, the Admiralty, Obukhov, Baltic, Izhora, and Tsaritsyn facilities, and the radiotelegraph factory, all of which had previously been under the direction of the Special Collegium of the People's Commissariat for Naval Affairs, went over to defense production. Arrangements were made to centralize the supply of scarce materials to shipyards and engineering works and to improve the provision of skilled labor. A special commission was formed under the Defense Council to monitor the progress of naval programs.

Strengthening the logistical base of the Soviet Armed Forces, the party and government got the most out of all sectors of the national economy. Even so, the Red Army's armament needs were not always fully met. However, strict centralization of defense production not only enabled defense enterprises to be provided equitably with raw materials, fuel, and manpower; it also permitted the most rational allocation of weapons and ammunition, having regard to the relative importance of the fronts.

After defeating the White Guard armies of Kolchak, Denikin, and Yudenich, the Soviet republic enjoyed a peaceful interlude at the beginning of 1920. Britain, France, and the U.S. had withdrawn their troops from Soviet soil, and the revolutionary movement in capitalist countries was gaining momentum under the slogan "Hands Off Soviet Russia!" The Entente had not succeeded in suppressing the revolution with armed force and was obliged to lift its embargo.

The 7th All-Russian Congress of Soviets (December 1919) and the 9th RKP(b) Congress (March-April 1920) resolved that the time had come to build up the national economy. Nonetheless, the Communist Party warned that as long as the Great Powers were dominated by the imperialist bourgeoisie, the socialist republic could not consider itself out of danger. "... Our steps toward peace must be attended by full military preparedness," said V. I. Lenin, "and on no account should we disarm our army."

Using the peaceful interlude to restore the national economy, the party and government called upon the Red Army to help perform this task, while maintaining its combat efficiency. The formal greeting from the 9th RKP(b) Congress to the Red Army and Navy of the RSFSR had the following message: ". . . You are coming to the aid of your brothers—the workers and peasants. Rifle in one hand, ready at any moment to repulse further enemy encroachments, you will take an axe or hammer in the other hand and help restore our devastated economy and ease the difficult transition to peacetime development."²²

On the initiative of the 3rd Army's revolutionary military council and with V. I. Lenin's approval, the Defense Council passed a resolution on 15 January 1920 renaming that army the 1st Revolutionary Army of Labor and authorizing its employment for procurement of provisions and forage, restoration of rail transport, coal mining, and agriculture. The task of restoring and improving rail service in the Moscow-Kazan' area was assigned to the Reserve Army of the Republic.²³ The end of January 1920 saw the emergence of the Ukrainian Labor Army and the Caucasian Labor Army. The former had the task of restoring the Donets Basin coal mines, increasing their output, and procuring provisions; the latter was expected to provide the country with grain and crude oil.²⁴

The 9th RKP(b) Congress considered the main trend in the peacetime organizational development of the Soviet Armed Forces to be the transition to a militia system. The congress intended that the Army contribute as much as possible to the productive work of the nation but indicated that such adaptation should be done gradually, taking into account the country's military and international situation, and "with the stipulation that the country's defensive capability be at the required level at all times."²⁵

The country's peaceful interlude was cut short in the spring of 1920 when international imperialism launched another large-scale campaign against the Land of the Soviet. On 25 April 1920, a ground force from bourgeois-landowner Poland, boasting nearly 150,000 bayonets and sabers, invaded the Soviet Ukraine and Belorussia, taking Kiev on 7 May. Wrangel mounted an offensive from the Crimea, threatening the Donets Basin.

On a front almost 1,000 km wide, the armies of White Poland were opposed by the Soviet Western and Southwestern fronts, which could field only 65,264 bayonets and sabers.

The party's Central Committee, under the chairmanship of V. I. Lenin, took prompt steps to mobilize all the country's people and resources to crush this new counterrevolutionary campaign. In an RKP(b) Central Committee report, "The Polish Front and Our Missions," published on 23 May 1920, the war with Poland was portrayed as an extremely important

event for all proletarian Russia. The party's Central Committee proposed that the list of military units on the labor front be reviewed, and that the majority of them be freed from their labor commitment immediately and brought to the necessary level of combat efficiency for earliest assignment to the Western Front.

Complying with the Central Committee's instructions, soviet, party, and trade union organizations made a great war mobilization effort: committees were formed to promote aid to the Western Front; volunteers were enrolled in the Army; rations, clothing, and equipment were collected; and voluntary unpaid workdays were arranged. Sunday, 1 May 1920, was celebrated as an All-Russian Voluntary Workday under the slogan "Let's Help The Front!"

To increase the strength of the Western and Southwestern fronts, the Revolutionary Military Council of the Republic suspended the demobilization of Red Army men born in 1879-85. Youths born in 1901 were called up at this time. Except for postal and telegraph workers and technical school students, requests for postponement of draft were not granted.³⁴ Owing to these measures, 62,000 men were sent to the Western and Southwestern fronts between 1 April and 17 June 1920.³⁵

The labor armies were brought to a state of combat readiness and sent to the front. The party sent fresh contingents of its members to reinforce the Red Army's ranks. As a result of party mobilizations from September to November 1920 (not counting the Ukraine or provinces near the front zone), 24,244 party members went to the front.³⁶ In addition, the Young Communist League gave the front several thousand young soldiers. According to incomplete data, on 1 August 1920 there were 120,185 party members in the army in the field, as against 61,681 on 1 October 1919.³⁷

The number of divisions and brigades in the Red Army increased from the spring of 1920 to the end of that year as follows: rifle divisions, 56 to 78; independent rifle brigades, 9 to 35; cavalry divisions, 21 to 22; and independent cavalry brigades, from several to five.³⁸

The fierceness of the struggle against imperialist intervention and White Guard counterrevolution called for better reserve training and prompt reinforcement of troops at the fronts. Guided by the resolutions of the 8th Party Congress, the Revolutionary Military Council of the Republic accelerated the formation of reserve units. Particular attention was paid to the formation of specialized reserve units in the artillery, cavalry, engineering, and technical categories. By August 1920, reserve units stationed in military districts, but subordinated to the All-Russian Main Staff, had a strength approaching 250,000 men and could part with as much as 60 percent of their number monthly for replenishment purposes.³⁹

In March 1919, directorates for forming, manning, and training troop units were made part of each front staff. The Reserve Army of the Republic, subordinated directly to the commander in chief of all Armed Forces, was created on 7 August 1919 in the Middle Volga River region by the Revolutionary Military Council of the Republic. The Reserve Army of the Southwestern Front was formed during the latter half of October. The role of these armies was to produce trained units and formations. During 1920, 1,051,223 men were sent from reserve units into the army in the field, about 355,000 of them going to the Western Front and more than 400,000 to the Southwestern and Southern fronts.⁴²

The measures adopted by the Communist Party and the Soviet government to create combat reserves, and the subsequent systematic reinforcement of the army in the field with comparatively well trained, well outfitted, and well knit units and formations, contributed considerably to the combat successes of the Red Army.

The system of universal military training for the workers was reorganized. The country was divided into 41 regimental territorial districts, which were coextensive, as a rule, with the provinces. A large industrial center like Moscow or Petrograd was given independent territorial district status. The regimental districts were divided into battalion sectors, which in turn were subdivided into company zones, and finally, into platoon areas, where the actual teaching of military affairs was done. At the regimental and battalion levels, schools were set up for making junior command personnel and universal military training instructors out of the workers. Special teams were created for training machine gunners, signalmen, and reconnaissance troops.

Universal military training became a very important reserve training scheme. About 5 million workers and peasants passed through it during the Civil War years.

Owing to the party's initiatives, by the end of 1920 the Red Army numbered 5,500,000 men. Its breakdown by class was as follows: peasants, 77 percent; workers, 15 percent; other, 8 percent. Of all Red Army personnel, 16.6 percent were volunteers.⁴³ The mission of building a massive regular army had been accomplished.

Concomitantly with the creation of a massive regular army, the party and government improved command and control methods and refined the personnel structure. The command personnel of units and formations were brought up to authorized strength, and active, determined party-political work among the troops was begun.

3. Improving Command, Control, and Organization in the Armed Forces

In fierce encounters with counterrevolutionary forces and foreign interventionists, the Red Army became stronger organizationally, acquired combat experience, and was transformed into a powerful force. Taking this into consideration, the Communist Party and the Soviet government adopted certain measures establishing centralized military command as an important principle in the organizational development of a regular army.

Primary importance was attached to improving the War Department's administrative apparatus. The 8th RKP(b) Congress had entrusted the party's Central Committee to reorganize the Field Staff; to normalize the work of the Revolutionary Military Council of the Republic and of the All-Russian Main Staff, strengthening party representation in them, linking them more closely with the fronts, and instituting regular meetings at which responsible party workers from the fronts would be present; and to strengthen the party-political apparatus in the Armed Forces.

Carrying out the decisions of the congress, the party's Central Committee repeatedly discussed the performance of the Field Staff of the Revolutionary Military Council of the Republic, making changes in its organizational structure and in its practical direction of combat actions.

The top-ranking officers of the staff were replaced. Specialized directorates and inspectorates were formed within the Field Staff to centralize direction of the branches. The direction of aerial combat actions was vested in the chief of the Air Force. The Field Directorate for Aviation and Lighter-Than-Air Units became the staff of the chief of the Red Air Force of the army in the field. Similar changes were made to field directorates for aviation and lighter-than-air units at the front and army levels. The Directorate of Naval Aviation was disbanded, and its functions assumed by the chief of the Red Air Force's staff. The Main Directorate of the Air Force was transformed into the Red Air Force Supply Directorate.

In May 1919, changes were made to the organizational structure of the Main Artillery Directorate. Its staff was reduced by approximately 25 percent. The number of its departments was reduced from 12 to 8, and the number of its sections from 44 to 26. In October 1919, the Central Directorate for Ordnance Plants was withdrawn from the Main Artillery Directorate and resubordinated to the Council of War Industries. The military district artillery directorates were the local organs of the Main Artillery Directorate.⁴⁴ Because of the reorganization, the latter's administrative apparatus became more flexible, and the personnel thus liberated were used to man new artillery units.

In the autumn of 1919, the Red Army Communications Directorate was formed within the Field Staff. It managed communications and supervised the forming, manning, training, and equipping of signal units.

The Main Directorate for Universal Military Training was established under the All-Russian Main Staff. This action contributed to a better awareness of the needs of the army in the field.

Changes took place in the organs empowered to conduct naval operations. The staff of the commander of all naval forces was formed in July 1919. The responsibilities of the Naval General Staff gradually lessened. Then it was abolished, and all its functions were assumed by the Naval Staff of the Republic. Among other organs of the RKKF central apparatus were the Main Shipbuilding Directorate, renamed the Main Naval Technical Directorate at the end of 1919, the Main Directorate for Naval Administration, and the Main Hydrographic Directorate.

The quest for the best organizational forms for the direction of the RKKF continued. The reorganization eliminated the long chain of command that formerly hampered direction of the Navy. By the summer of 1920, such direction was the prerogative of the commander of all naval forces, who reported directly to the Revolutionary Military Council of the Republic.

Local military organs were strengthened organizationally. A statute on the military district commissariat was enacted on 30 September 1919.⁴³ In place of a military director and two military commissars, such a commissariat was to be headed by a military district commissar appointed by the Revolutionary Military Council of the Republic and subordinate solely to the All-Russian Main Staff. The local soviets, which formerly enjoyed the right to appoint one of the two military commissars, and which often intruded into the commissariat's operational activity, were divested of that right. The military district commissar was endowed with direct authority over all troops and all military directorates, establishments, and institutions in his district, and he enjoyed army commander status with respect to them. Similar changes were made in provincial and in many district military commissariats. In certain smaller district military commissariats, the post of military director was abolished.⁴⁴ The new military commissariat organization made it easier to introduce unity of command and strict centralization of administrative control.

Within the overall system of military administration, a growing role was played by organs charged with safeguarding socialist legality and maintaining law and order. A system of revolutionary military tribunals was set up in 1919. Such tribunals were under the revolutionary military councils at the front and army levels. An army tribunal had branches in the divisions. At the head of all such tribunals stood the Revolutionary Military

Tribunal under the Revolutionary Military Council of the Republic. The tribunals were required to deal not only with military and counterrevolutionary offenses but with criminal offenses committed by servicemen as well.

While under the political control of the revolutionary military council to which it was subordinate, a revolutionary military tribunal worked closely with its military command. The revolutionary military tribunals did much to strengthen military discipline and to maintain law and order in the Armed Forces.

Ways to increase the combat efficiency of the Red Army's formations were constantly being sought during hostilities. Special attention was paid to increasing the firepower and striking power of the rifle division. By 1920, the authorized strength of such a division had been reduced to 36,263 men. As formerly, it consisted of three brigades with three regiments in each. To improve the rifle division's mobility, the Revolutionary Military Council of the Republic authorized its reinforcement with a four-troop cavalry regiment and a horse-machine gun platoon. The same order, dated 22 June 1919, also prescribed the inclusion of a regimental school and miscellaneous units."

The number of artillery guns in the army in the field increased significantly. Whereas toward the end of 1918 the ground forces had about 1,700 such guns, by May 1919 they already had 2,300."

Cavalry provided the main mobile striking power of the ground forces. Its relative strength rose significantly. A distinct demarcation developed between organic cavalry (units organic to rifle divisions) and strategic cavalry (units and formations under direct command of the front commander). On 15 August 1919, the organic and strategic cavalry numbered 32,124 and 14,076 sabers respectively."

The basic type of cavalry formation was the cavalry division. According to a table of organization and equipment authorized by the Revolutionary Military Council of the Republic on 10 March 1919, such a division consisted of two brigades with two four-troop regiments in each. The cavalry division also had a four-battery horse-artillery brigade, a signal troop, a horse-engineer troop, and so forth.

The main trend in the development of the cavalry during the Civil War years was toward the creation of large mounted formations and field forces capable of accomplishing tactical, operational, and even strategic missions independently. On 26 June 1919, the 4th and 6th cavalry divisions were merged to form the Cavalry Corps. This was the basis for the 1st Cavalry Army, formed in November 1919. S. M. Budennyi was its commander, and K. Ye. Voroshilov and Ye. A. Schchadenko were

members of its revolutionary military council. Formation of the 2nd Cavalry Army was finished in June 1920.

The creation of cavalry field forces and the concentrated employment of cavalry, which in turn gave the Red Army greater mobility, was an extremely important factor in increasing its fighting strength.

The proportion of armor in the ground forces increased constantly. To provide the armored forces with equipment, Soviet enterprises renovated combat vehicles and clad motor vehicles with armor. The basic organizational unit of the armored forces was the armored car detachment, which operated as an independent unit. According to a table of organization and equipment authorized on 20 November 1919, the armored car detachment consisted of a command element and two combat platoons (with two cars in each). Together with its technical platoon, the armored car detachment had 12 cars and 75 men.¹⁰

Although the organizational structure of the armored car detachment remained virtually unchanged until the end of the Civil War, such detachments increased in number: whereas in October 1918 the Red Army had 23, by the end of 1920 it had 55, equipped with 155 armored cars.¹¹

The armored train was used extensively. Organizationally, it operated as an independent military unit.

A special assault detachment was conceived for joint combat actions with the armored train. Such a detachment was a company of three rifle platoons and one machine gun platoon. The assault detachment had its own rolling stock with a semiarmored locomotive. It was subordinate to the armored train commander.

The direction of armored units was reorganized in March 1920. An inspectorate for armored units was established under the Field Staff of the Revolutionary Military Council of the Republic. Its head, entrusted with the armored units and their command personnel, was an immediate adviser and assistant to the chief of the Field Staff on the use of armored units. At the front level, all armored units were under the chief of armored units, who reported directly to the chief of staff of the front for tactical purposes, and to the inspector of armored units for technical and special purposes. There was a similar structure for the direction of armored units at the army level.

Thus, the operational direction of the republic's armored units was wholly concentrated in the hands of the inspector of armored units. The supply and maintenance of the armored forces' materiel remained the responsibility of the Main Military Engineering Directorate. This restruc-

turing of the control of armored units was an important step in their transformation into an independent branch.

In 1920, changes were made to the armored train organization. According to their combat use and armament, three categories of armored train were defined: Type A, the standard armored train; Type B, the two-gun armored platform; and Type C, the one-gun armored platform.

Type A was manned by 162 men and was armed with 4 1902-model 3-inch guns and 16 machine guns. The train consisted of an armored locomotive and two armored flatcars. It was attached to the army level. Type B, the two-gun armored platform, consisted of a semiarmored locomotive and one armored flatcar fitted with two heavy 6-inch guns and four machine guns. It was manned by 57 men and was at the disposal of the front staff. Type C, the one-gun armored platform, consisted of a single flatcar fitted with one heavy gun of 6-inch or greater caliber and two machine guns. It was at the disposal of the High Command. In combat, a Type B or Type C armored platform was usually assigned to a Type A armored train "as a second line," and was fired as directed by the latter's chief of artillery."

The tank and motor transport detachment was introduced in 1920. Its table of organization and equipment was authorized by the Revolutionary Military Council of the Republic on 28 May 1920. At the outset, it had only three tanks, but combat experience soon showed that two platoons with two tanks of the same model in each would be preferable. The detachment had a strength of 81 men. Besides tanks, the detachment had 2 to 3 automobiles, 3 to 4 trucks, and 2 to 3 motorcycles."

By the end of 1920, the composition of the Red Army's armored forces was as follows: 122 armored trains, 49 armored car detachments, 8 armored flyers, 10 tank and motor transport detachments, 5 armored railway trolleys, and 1 airborne repair brigade. The strength of the armored forces was 28,657 men."

At the outset, the engineer troops consisted organizationally of units with diverse specialties, such as sapping, pontoons, camouflage, and so on. Units with specialties such as hydrotechnics, construction, and demolitions were created as the need arose.

During the Civil War, the engineer troops played a growing role, became better equipped, and grew in strength. In the spring of 1918, they numbered 4,360, which was 1.4 percent of the entire strength of the Red Army. The corresponding figure for the end of the Civil War was 2.8 percent."

The direction of engineer troops was improved. On 3 October 1919 a statute was enacted on engineer organs of field directorates at the army and front levels.

Toward the end of the Civil War, engineer troops comprised the following units in addition to those belonging to rifle divisions: seven engineer battalions, six pontoon battalions, one special purpose demolitions battalion, camouflage units, searchlight units, and so on.⁵⁶

With each day, the scale of combat actions and their exceptional fluidity made greater demands on command and control, which in turn made greater demands on communications. A Revolutionary Military Council of the Republic order from 20 October 1919 on the founding of the Red Army Communications Directorate introduced the post of chief of communications at the front, army, division, and brigade levels. Similar steps were taken to improve naval communications ashore and afloat. The post of chief of naval communications was created on the staff of the commander of all naval forces, its incumbent being responsible for maritime and river communications.⁵⁷

Toward the end of the Civil War, signal troops consisted of units belonging to rifle divisions and of units directly subordinate to the chief of the Red Army Communications Directorate and to the chief of communications on the staff of a military district or front. Rifle divisions, brigades, and regiments contained 56 battalions, 143 companies, 12 troops, and more than 500 signal teams, with a strength of 59,665 men. The following signal units existed outside the rifle division: 16 battalions, 79 telegraph construction companies, 40 [telegraph] operating companies, 13 independent companies, and other units, with a strength of 39,478 men. Additionally, 510 civilian post and telegraph field installations were attached to the staffs at the front, army, and division levels. Altogether, the signal troops numbered more than 80,000 men, or about 2 percent of the strength of the Red Army.⁵⁸ Although they were very poorly equipped, these troops provided the command with communications. This permitted effective control of units, formations, armies, and fronts, which was an extremely important prerequisite for the Red Army's victories during the years of the Civil War.

V. I. Lenin and the Communist Party attached great importance to rail transport. It was V. I. Lenin who said that "without railroads, a socialist revolutionary war would be the most pernicious treachery."⁵⁹ To put it in good order and completely subordinate it to national defense needs, rail transport was put under martial law. In accordance with a Defense Council resolution dated 9 July 1919, implementation of this measure was entrusted to specially empowered Defense Council delegates.⁶⁰

On 24 October 1919, to ensure efficient, centralized direction of the railroad troops, the Revolutionary Military Council of the Republic decided to transform the independent railroad companies into railroad battalions, and to unite these battalions into brigades. The brigade chiefs reported to the chief of railroad troops of the Soviet republic, and to the chief of military communications of the front (or army), for operational and technical direction respectively. At the same time, the table of organization and equipment for an independent railroad brigade was authorized.⁶¹

Toward the end of the Civil War, there were 10 railroad brigades, including 34 railroad battalions, 1 narrow-gauge railroad brigade, 1 track repair brigade, 1 reserve railroad battalion, and 3 permanent yards. The strength of the railroad troops was 47,714 men.⁶²

During the Civil War, the railroad troops restored and serviced more than 22,000 km of track, repaired 3,169 railroad bridges, refitted and tended 212 water-supply points, and overhauled 16,530 railroad cars.⁶³

Steps were taken to complete the organizational development of a regular Red Navy. Between the spring of 1919 and the end of the Civil War, several new lake and river flotillas were formed. They were not intended to be permanent, their tenure and necessity being dictated by specific Civil War conditions. For example, the Don River Flotilla, which had a strength of 350 men in June 1919, persisted for only 3 months; and the Volkhov River-Lake Il'men' Flotilla, which was 200 men strong on 1 April 1919, lasted for an equally brief period.⁶⁴

The biggest naval units on the inland waterways were the Volga River-Caspian Sea Flotilla, the Severnaya Dvina River Flotilla, the Dnepr River Flotilla, and the Lake Onega Flotilla. All told, they had 280 combat and auxiliary vessels in commission. In 1919, the Volga River-Caspian Sea Flotilla alone had 150 guns of various calibers and more than 130 machine guns.⁶⁵

New tables of organization and equipment for naval bases were introduced in 1919. Centers were set up in the main naval bases for the admission and initial training of recruits before their distribution either to schools or other training facilities, or directly to the fleet or onshore units for duty.

The main naval port was Kronshtadt, where most of the operational ships in the Baltic Fleet were based. This naval fortress was the supply center for many flotillas.

Permanent units of marine shore detachments were created in the flotillas and at the Petrograd and Kronshtadt naval bases. A four-

regiment marine expeditionary division was formed in August 1920. It was the largest marine formation of the Civil War.

When the northern, southern, and southeastern coastlines were liberated, the restoration of naval forces in the most important maritime theaters became a pressing problem.

In May 1920, the Don River-Sea of Azov Flotilla (based at Rostov) and the Sea of Azov Flotilla (based at Mariupol') were united with the Southwestern Front's seagoing and rivergoing forces (based at Odessa and Nikolayev) to become the Black Sea and Sea of Azov Naval Force, which was subordinated to the commander of all naval forces of the Soviet republic. This was a first step toward reinstating the Soviet Navy in the Black Sea.

The revived Black Sea Fleet was strengthened with experienced officers and political personnel and was supplied with armament and equipment. Armed launches and naval aircraft were transferred from the Caspian to the Black Sea. By autumn the Black Sea Fleet had approximately 100 gunboats, escort vessels, minesweepers, launches, transports, and floating batteries. Organizationally, they were grouped into the Northwestern Black Sea Detachment and the Sea of Azov Flotilla. When Wrangel was defeated and the Crimea liberated, Sevastopol' was reinstated as the main base of the Black Sea Fleet.

In April 1920, the Severnaya Dvina River Flotilla and the former Arctic Ocean Squadron were combined as the Northern Naval Force. Its combat and auxiliary vessels included approximately 60 minesweepers, floating batteries, armed merchant vessels, escort cutters, transports, and hydrographic vessels.

Arkhangel'sk was provided with a naval port, coastal defense, a sea-going flotilla, and a river flotilla. Murmansk was provided with a naval port, coastal defense for the Kola Inlet, and a minesweeping detachment. Much attention was paid to providing a reliable hydrographic service. The Northern Naval Force had a navigational safety directorate and two hydrographic detachments.

In July 1920, the Volga River-Caspian Sea Flotilla and the Soviet Azerbaydzhan Fleet were combined as the Caspian Naval Force. Naval ports were founded at Baku, Krasnovodsk, and Makhachkala. Besides guarding the coast and combating White Guard remnants, the Caspian Naval Force safeguarded oil shipments out of Baku.

Particular attention was paid to increasing the combat efficiency of the Baltic Fleet, which had played an active part in the defense of Petrograd. On 23 October 1920, V. I. Lenin drafted a resolution on behalf of the

Council for Labor and Defense that proposed "to pay special attention to accelerating the renovation of the Baltic Fleet, enlisting the services of all establishments capable of furthering this cause."⁶⁶ This resolution marked the advent of a new era in strengthening the naval forces not only in the Baltic but throughout the Navy as a whole.

Civil War experience was used in further developing the Red Navy, especially in improving its organizational structure, training its personnel, developing its armament, and forming opinions on its use in war.

The Workers' and Peasants' Red Air Force grew quantitatively and qualitatively. With the strengthening of its technological base, the accumulation of combat experience, and the diversification of its employment, the Red Air Force gained constantly in self-sufficiency and in the importance of its role. According to the nature of its missions, the Red Air Force was divisible into the following categories: land-based aviation, naval aviation, and lighter-than-air aircraft.

Land-based aviation consisted of reconnaissance and fighter detachments, a squadron of heavy aircraft, and observation balloons. All of these were used to support the troops on all Civil War fronts and to defend large administrative and industrial centers.

Naval aviation consisted mainly of fighter and reconnaissance seaplane detachments with 4 to 8 aircraft in each. These detachments were used to support the combat actions of surface ships and submarines.

In the organizational development of military aviation there was a distinct tendency toward greater centralization in command and control and in combat applications. Whereas at the beginning of the Civil War aircraft detachments were subordinated operationally to rifle divisions, in 1919-20 air groups comprising several detachments were created for the massing of forces. In the spring of 1919, the composition of the Red Air Force was as follows: 23 air staffs, 7 at the front level and 16 at the army level; 65 detachments of combat aircraft; 1 squadron of heavy Il'ya Muromets class aircraft; 5 lighter-than-air squadrons; 28 lighter-than-air detachments; 2 maritime air staffs; 20 seaplane detachments; 2 seaplane bases; 5 central airship depots; 6 aircraft depots; and 16 airtrain workshops. The network of special Air Force educational institutions was expanded. There were 10 aviation schools and the Moscow Aviation Technical School.⁶⁷

During the Civil War the Red Air Force, in cooperation with the other branches, made a significant contribution to defending the gains of the Great October Socialist Revolution. It became a formidable force against the enemy.

As the White Guard armies were defeated, and as the land was liberated from foreign interventionists, the state borders of the Soviet republic were gradually restored, and steps were taken to ensure that they were well guarded. In September 1919, the Main Border Guard Administration was disbanded. In its place, the Border Surveillance Section was founded and subordinated to the People's Commissariat for Trade and Industry. This section and its local organs, together with the border extraordinary commissions, waged a campaign against smugglers and other border violators in sectors outside the theater of operations.

On 19 March 1920 the Defense Council, under the chairmanship of V. I. Lenin, reviewed the "Emergency Measures to Safeguard the Borders of the Soviet Republic" and instructed the Revolutionary Military Council of the Republic to detail special units for border duty. A Council for Labor and Defense resolution dated 14 July established a border guard made up of units specified by the War Department and subordinated to the Central Directorate for Border Surveillance under the People's Commissariat for Foreign Trade.

Survivors of the counterrevolutionary forces defeated during the Civil War found asylum in the bourgeois countries of Europe and Asia. Not confining their anti-Soviet activity to the ideological struggle, they actively maintained contact with bandit groups, supplying them with arms and equipment. In these circumstances, guarding the state borders became an urgent matter. A Council for Labor and Defense resolution dated 24 November 1920 placed the responsibility of guarding the border on the All-Russian Extraordinary Commission and its Special Section, headed by V. R. Menzhinsky. The forces needed were detailed from the Internal Service Troops. When these troops were disbanded, the All-Russian Extraordinary Commission's special border guard units were recruited primarily from the Red Army. After this reorganization, all that remained of the People's Commissariat for Foreign Trade's jurisdiction at the border was customs surveillance of imports, exports, and passenger luggage.

The Red Army's victorious campaign on the Civil war fronts directly affected the auxiliary troops. Guarding the rear of the army in the field, safeguarding large administrative and industrial centers, and conducting the campaign for bread all acquired greater importance. Characteristic of the organizational development of auxiliary troops was a trend toward more centralized control.

A Defense Council resolution dated 28 May 1919 decreed that auxiliary troops attached to independent departments, establishments, and organizations, other than railroad troops and border guards, were to be resubordinated to the People's Commissariat for Internal Affairs. The All-Russian Extraordinary Commission Staff was renamed the Internal Security Staff. The conditions of service for such troops, with regard to

manning, organization, drill, and allowances of all types, were laid down in accordance with War Department norms.⁶⁸ This resolution intended that the Food Army Directorate would be disbanded not later than 1 August 1919. An order issued by the chief of the Internal Security Troops on 8 August 1919 required that all units be renamed Internal Security Troop rifle units.⁶⁹

Organizationally, the Internal Security Troops emulated the Red Army. Overall direction was provided by a military council under the chairmanship of F. E. Dzerzhinskiy.

The Internal Security Troops' military council had the status of a front-level revolutionary military council, and their chief had front commander status. Internal Security Troop units and formations were set up in accordance with the tables of organization and equipment authorized by the Revolutionary Military Council of the Republic.

The basic administrative unit for the Internal Security Troops was the sector. Such sectors were coextensive with the military districts. This improved the logistic support of these troops in accordance with Army norms and rules. The sector was divided into as many regions as there were provinces. The region, in turn, was subdivided into zones.

The Internal Security Troops were primarily concerned with combating counterrevolutionary insurgents, safeguarding state establishments and public works of particular importance, and guaranteeing the security of transport and industrial enterprises. However, it not infrequently happened that the Internal Security Troops came into direct confrontation with the enemies of the Soviet republic at the fronts. Of the Internal Security Troops' 173 rifle battalions, 95, with a strength of 52,699 bayonets, saw action between 1 July and 1 December 1919.⁷⁰

A Council for Labor and Defense resolution dated 1 September 1920 authorized a merger of the Internal Security Troops with all auxiliary troops engaged in guard duty, maintaining order, and enforcing government instructions (sentry troops, railroad troops, railroad police, water police, and so on). The new troops were called Internal Service Troops.⁷¹ The resolution also introduced the post of commander of Internal Service Troops of the Republic. Its incumbent reported directly to the People's Commissariat of Internal Affairs and to the commander in chief of all Armed Forces of the Republic. In addition, the resolution authorized the creation of the staff of the Internal Service Troops of the Republic.

Internal Service Troop commanders and staffs were also instituted at the front and army levels. The commander of the Internal Service Troops of a front (or army) reported to the front (or army) commander and to the commander of the Internal Service Troops of the Republic for operational

and administrative direction. Internal Service Troops stationed in a military district were subordinated to the military district commander.

Implementing the measures outlined by the 8th RKP(b) Congress to strengthen the Armed Forces organizationally, the party's Central Committee and the Soviet government did their utmost to improve the training and indoctrination of command personnel. In doing so, they were governed by the instruction of the congress "to increase the development of politically conscious and professionally competent command personnel of proletarian or semiproletarian background, instituting at the front and in the rear examination boards with a predominance of party representatives empowered to select Red Army men systematically for officer training on the basis of maximum combat experience."''

The number of military educational institutions producing specialist officers increased considerably. Whereas in January 1919 the Main Administration for Military Educational Institutions had only 63 such institutions under its jurisdiction, the corresponding figures for 1 September 1919 and November 1920 were 107 and 151 respectively. There were approximately 54,000 students. The number of Red commanders graduating from these institutions during the 12 months of 1919 and the first 10 months of 1920 was 11,566 and 19,552 respectively."

Much attention was paid to the class background of officer candidates, and every effort was made to increase the proportion of party members among them. In 1919, 71.6 percent of the officers graduating from schools or courses had been workers or peasants; in 1920, 81.3 percent. More than half of the school graduates were party members."

The advent of military educational institutions for making senior and higher command personnel out of workers and peasants was immensely important for strengthening the Red Army.

On 15 March 1919, in accordance with an order issued by the Revolutionary Military Council of the Republic, the Artillery Academy was renamed the Red Army Artillery Academy and underwent certain changes. In particular, it offered an 18-month course for higher and intermediate command personnel. The first graduation from the Higher Artillery School, which had instituted a refresher course for battery and battalion commanders, took place in 1919.

In the same year, the Soviet Naval Academy was founded on its tsarist counterpart. In addition to the traditional naval faculty, it had four new faculties for instruction in the following disciplines: naval architecture, hydrography, marine engineering, and naval ordnance. Hydrographic classes and minesweeping courses were started in 1920.

In September 1920, the Aviation Technical School was reorganized as the N. Ye. Zhukovskiy Red Air Force Engineering Institute.

The Communist Party, aware of the growing demand for political, administrative, and command cadres, foresaw the development of the military educational institutions that it created and fostered. A vivid example of this is provided by the party's anticipation of the need for qualified faculty members to staff such institutions. The Military Pedagogical Institute at Petrograd, which was put on the same footing as a military academy, opened its doors on 28 March 1920.

Making officers out of workers and peasants was a matter that the Communist Party considered vital not only to army political organizations but to local party organizations as well. In a directive addressed to municipal and provincial party committees in April 1920, the RKP(b) Central Committee called upon them to participate actively in the drive to provide the military educational institutions with a full complement of officer candidates, conducting party mobilizations where necessary.

In July 1920, the Main Administration for Military Educational Institutions submitted for the Central Committee's consideration a revised set of conditions for admission to officer training: "Applicants shall be screened by a Credentials Committee made up of political workers. When deciding on the eligibility of an applicant, the committee shall consider the following criteria: a) the candidate's social background, determining whether he is really a worker or working peasant, or merely a bourgeois, for the likes of whom there can be no vacancy; b) his party status, observing that party membership confers precedence; c) the depth of his political awareness, observing that an individual who is not politically conscious, who does not understand, or does not properly understand, the missions of Soviet authority and the struggle that must be waged on its behalf will not make a good Red commander; d) commissars' and party cell recommendations; and e) his service record, considering whether the candidate has proven his dedication to the workers' and peasants' cause not merely in words but in deeds, at the front or elsewhere."

The 8th RKP(b) Congress insisted that the programs at military educational institutions be reviewed to determine "conformity to the spirit of the Red Army and suitability to the Civil War situation." The result was that the time allotted to practical activities was increased somewhat at the expense of theoretical course content.

The end of 1919 saw the introduction of generalized training plans and programs in which preparatory classes of 2-3 months' duration were followed by special classes of 3 months' duration. At the same time, the Main Administration for Military Educational Institutions proposed that military educational institutions relinquish the lecture method of instruc-

tion in favor of extensive discussions in conjunction with practical activities.

These measures improved the social and class structure of command personnel and inculcated in officers the knowledge, ability, and skill to lead a unit.

To intensify the party's influence on military personnel, the Central Committee, at V. I. Lenin's initiative, took a number of steps to strengthen the Army's party-political apparatus. Soon after the 8th RKP(b) Congress, the All-Russian Bureau for Military Commissars was abolished, and its functions were assumed by the newly created Political Section of the Revolutionary Military Council of the Republic. On 26 May 1919, the Political Section was transformed into the Political Directorate and had the status of a Central Committee military department. The formation of a system of political organs in the Armed Forces was thus culminated.

The focus of party-political work shifted to the troops. In an order dated 14 October 1919, the Revolutionary Military Council of the Republic authorized the post of political instructor for each battery, troop, and independent detail. Its incumbent was expected to do indoctrination work among the men of his unit daily, clarifying political questions. The political instructor reported to the unit's commissar and was his assistant. The appointment of commissars and the system of political sections was normalized. In January 1920, regulations and tables of ranks were published for political sections for fronts, armies, divisions, district political education directorates, and provincial political education sections.

V. I. Lenin and the Central Committee did their best to broaden the role of political organs in Red Army life. In July 1919, the Central Committee noted the following: "Whatever the effort, a political section must lead the given Red Army unit in political matters, and its members must be the most popular individuals in the regiment." V. I. Lenin and the Central Committee insisted that political workers be selected for their administrative and political skills.

In their duties, political organs and military commissars depended upon the party members, who were united into party cells. As of 1 August 1920, the RKKA had about 7,000 party cells" and about 300,000 party members." An instruction ratified by the 8th RKP(b) Congress defined the structure of Army and Navy party organizations, their place, functions, and legal position. The party organization was not empowered to interfere in the military or administrative activities of the commander. However, in its indoctrination and educational work among the troops, the party organization was required to use all available means to build

confidence in the commander and the military commissar, and to inculcate respect for their authority.

The party-political apparatus engendered and nurtured in the Soviet Armed Forces stood in constant need of reinforcement with key personnel. Party-political work had become an honored and complex military profession. The need arose to train highly educated cadres of political workers.

The N. G. Tolmachev* Red Army Teachers Institute, which opened on 1 November 1919 under the Petrograd Military District's Political Education Directorate, was the first major military political educational institution. The institute had four departments: a political department, providing lecturers and teachers for political education; a pedagogical department, preparing teachers for the Red Army's literacy schools; an instructional department, producing instructors and course organizers; and a library department. Later, a theater workshop was opened and made equal to a department.

On 23 February 1920, the institute was transformed into the N. G. Tolmachev Petrograd Red Army University. It had five faculties: political science, education, engineering, rural culture, and the arts.

The need for party-political work grew during the Civil War. It was called upon, in its entire content, to guarantee the continuity of the Communist Party's ideological and organizing influence on the troops, to build up their political consciousness and morale, and to mobilize their moral strength for a crushing rebuff to counterrevolution. "Wherever discipline is tightest and wherever the military commissar sees to it that political work among the troops is done most conscientiously," emphasized V. I. Lenin, "there laxity does not exist in the Army; there order and morale improve; there victories are more numerous."¹⁰

The steps taken by the Communist Party improved the efficiency and purposefulness of party-political work and ensured that it continued ceaselessly and produced results. Implementing the decisions of the 8th RKP(b) Congress, commanders, political workers, and party cells inculcated high moral-political and military qualities in their enlisted men, explaining to them the party's policy and ideals and the just nature of the war being waged against the imperialist aggressors.

In vocal agitation and propaganda, in the press, and in cultural and educational work, high priority was accorded to explaining to personnel the Red Army's social nature and destiny, its popular and revolutionary character, and its national and international missions.

*An eminent Red Army political worker. He perished in 1919.

V. I. Lenin believed active participation in agitation and propaganda work to be an important obligation of every party member, and he himself often spoke to assembled soldiers and officers of the Red Army. V. I. Lenin explained to them the domestic and international situations, the sources of the strength and invincibility of Soviet authority, and inspired them to strive for victory. On occasion, V. I. Lenin saw troops off to the front. His impassioned speeches and profound ideological conviction inspired personnel to feats of heroism.

The following is a list of the speaking engagements met by V. I. Lenin during the months of April through October 1919: 15 April, a ceremonial assembly of trainees of the first Moscow officer courses; 19 April, Red Army General Staff Academy; 25 May, parade for universal military training; 14 June, concert and assembly for Moscow Machine Gun Course students; 15 June, nonparty conference of Red Army men at the Khodynskiy Garrison; 6 August, nonparty workers' and peasants' conference for the Presnenskiy, Sushchevsko-Mar'inskiy, Khamovnicheskiy, and Butyrskiy Moscow districts; 3 September, nonparty workers' and Red Army men's conference for the Basmanny, Lefortovskiy, Alekseyevskiy, and Sokol'nicheskoye Moscow districts; 16 October, assembly of mobilized worker-party members of the Yaroslavl and Vladimir provinces; 24 October, an assembly of Sverdlovsk University students bound for the front, and an assembly of mobilized Ivanovo-Voznesensk worker-party members. Even this list of public appearances by the leader of the Communist Party and the Soviet government could be continued.

Each address by an eminent party figure or statesman broadened the Red Army man's political horizon, raised his morale, and implanted in his heart the will to win and faith in ultimate victory.

By the end of the Civil War, a network of cultural and educational facilities had taken shape in the Red Army. As of 1 October 1919, there were 3,800 schools for elementary political education, 2,393 libraries, 800 village reading rooms, 1,315 clubs, 250 theaters, 161 traveling cinemas, and 143 amateur dramatic circles.¹

A big contribution to the ideological and political indoctrination of the Red Army's men was made by the press. Political sections published their own newspapers and printed appeals and leaflets. In May 1919, the Political Directorate under the Revolutionary Military Council of the Republic began publication of a magazine called *Krasnoarmeyets* [The Red Army Man], which soon became popular among the rank and file of the Red Army's units and formations.

The central newspapers were also widely distributed in the Red Army. In June 1920, the Red Army circulation of the indicated dailies was as follows: *Pravda* [Truth], 64,000; *Izvestiya* [News], 47,000; *Bednota* [The

Poor], 265,000; *Kommunisticheskiy trud* [Communist Labor], 6,000; *Izvestiya Narkomvoyena* [News of the People's Commissariat for Military Affairs], 7,000; and *Ekonomicheskaya zhizn'* [Economic Life], 2,000; approximately 391,000 papers in all."

An extremely important aim of political indoctrination work was to strengthen discipline, inculcating in the Red Army man respect for his commanders. Unquestioning execution of orders was considered essential for high combat efficiency of troop units and formations, and this truth was persistently impressed upon every Red Army soldier and commander, party and Young Communist League member.

The party member's booklet, compiled by the political section under the revolutionary military council of the Southern Front, contained the following passage: "The party member must set an example of discipline, obedience to orders, and efficiency. If your commander has issued an order, and it has been countersigned by the commissar, it is your duty to obey that order without question. . . . You must not enter into a discussion about whether the order is good or bad, because if you do, others will follow suit, and instead of deeds there will be mere words and disorder; and meanwhile, the enemy will be doing his worst. It is your duty to be the first to execute an order and to rally all Red Army men around you to do likewise."

The requirement for prompt compliance with an order in no way prevented the exercise of judicious initiative aimed at executing the order in the best manner.

The blending of initiative with unquestioning execution of orders was a vivid manifestation of the Red Army man's social activeness and one of his most important moral-political attributes as well. Based on an understanding of the soldier's duty, social activeness combined a feeling of revolutionary purposefulness in officers, political workers, and enlisted men with their resolve to selflessly defend the gains of the revolution, and it increased their sense of responsibility for the fate of their socialist Fatherland.

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The creation and strengthening of a new socialist army during the Civil War, an army that put the interventionists and White Guards to rout, was an illustrious page in the annals of the Soviet state and its Armed Forces. The Communist Party was able to solve this extremely difficult problem because it relied upon Marxist-Leninist teaching on war and the army, and because it displayed revolutionary valor and innovation, using all the creative vigor of the toiling masses.

It was possible to mobilize the socialist state for defense because the working class, led by a Marxist-Leninist party, was exceptionally well organized, well disciplined, and socially conscious. Representing the interests of the population at large, the party of the Bolsheviks, headed by V. I. Lenin, assumed responsibility for the armed defense of the country.

Characterizing the Communist Party's decisive role in the organizational development of the Soviet Armed Forces and in the victorious outcome of the Civil War, V. I. Lenin noted the following: "And it was only because the party was on guard, that the party was most strictly disciplined, that the party's authority united all departments and establishments, so that tens, hundreds, thousands, and finally millions marched as one to the Central Committee's slogan, and only because unheard-of sacrifices were made—only for these reasons that the miracle which happened could happen. Only for these reasons, despite the double, triple, and quadruple campaign of the Entente imperialists and the imperialists of the entire world, were we in a position to triumph"" Military problems had a high priority in all party work.

From the first days of the proletarian state's existence, the Communist Party and its Central Committee assumed the political leadership of the Soviet Armed Forces, developing and improving them in the spirit of overall party and Soviet development. The political leadership of the Armed Forces was a vital component of the party's guidance of Soviet society and of the machinery of state as a whole. The principle of unlimited party guidance in the organizational development of the Armed Forces was of decisive importance for their genesis, maturation, and further development.

The Communist Party declared its newly created army to be a socialist, working-class army. The historic purpose and functions of the Workers' and Peasants' Red Army, the Workers' and Peasants' Red Navy, and the special service troops were dictated by the sociopolitical foundations of the Soviet state and by its short-term and long-term goals. The unity and cohesiveness of the services were also thus dictated, as were the organizational principles of their development and the radical differences between them and bourgeois armies.

The organizational development and buildup of the Soviet Armed Forces during the Civil War may be divided into three principal states: first, the dismantling of the old army and the building of a new one on a voluntary basis; second, the creation of a massive regular Red Army by nationwide conscription of the workers; and third, the culmination of the organizational development of a massive regular army.

Given the conditions of an acute class struggle and an old army that had to be broken up, the only possible way to produce effective combat units was to enlist volunteers on a strictly class basis. This ensured the

homogeneity of the nascent mass army and secured the enrollment of men whose communist convictions, dedication to the Soviet cause, revolutionary fervor, and selfless fortitude not infrequently compensated for lack of munitions and organizational shortcomings, assuring victory over the numerically stronger and better equipped interventionists and White Guards.

A qualitatively new stage in the organizational development of the Soviet Armed Forces was the transition from voluntary recruitment to universal conscription. Its inevitability stemmed from the need to repulse the united forces of counterrevolution and intervention. This transition was brought about by a number of political and economic measures introduced by Soviet authority—measures that united the proletariat and peasantry more strongly and turned the country into a unified armed camp—as well as by the advent of universal military training for the public and the creation of local organs of military control.

The culmination of the organizational development of a massive regular army for the socialist state was accomplished through decisions made by the 8th RKP(b) Congress. Standard tables of organization and equipment were authorized for Red Army units and formations, putting troop organization and logistical supply on a planned basis. In time, the Red Army and Navy were turned into a precisely controlled organism capable of conducting combat actions over vast distances with great vigor and determination.

Being the armed force of the workers and the working peasantry, the Red Army was continuously reinforced by the common people. By the end of the Civil War, the Red Army was 5,500,000 strong and consisted of more than 20 armies and about 100 divisions. The Soviet art of war was conceived and tested on the battlefield.

The problem of providing the Armed Forces with command personnel was successfully solved. Workers and peasants dedicated to the revolution boldly and decisively rose to the occasion, assuming positions of leadership. The Soviet state skillfully used the knowledge and experience of specialists from the old army, many of whom recognized Soviet authority unreservedly and served it conscientiously.

A key figure in the indoctrination of personnel was the military commissar. The representative of Soviet authority among the troops, he was also the repository of the Communist Party's ideals, discipline, firmness, and valor in the campaign against the enemies of socialism. The party-political apparatus in the Armed Forces was set up and strengthened during the years of the Civil War.

The organizational development of a regular army was accompanied by a new system of Armed Forces control that provided for unity of political and strategic command and allowed the ideological influence of the Communist Party and the Soviet state to penetrate to the rank and file continuously. This system permitted the advantages of the socialist order to be used effectively in the interests of armed conflict.

Created to defend the gains of the revolution, the Soviet Armed Forces enjoyed the support of the international proletariat. Tens of thousands of combatant internationalists served valiantly under the Armed Forces' colors.

During the struggle against the interventionists and the White Guards, a firm foundation was laid for a new, socialist army, and the principles of its organizational development were worked out and tested. This opened the way to further develop and strengthen the Soviet Armed Forces during a period of peaceful socialist construction.

Notes

1. *KPSS v rezolyutsiyakh i resheniyakh s'yezdov, konferentsiy i plenumov TsK* [The CPSU in the Resolutions and Decisions of Party Congresses, Conferences, and Central Committee Plenary Sessions] (Moscow, 1970), II, 67. [Hereafter cited as *CPSU in Resolutions—U.S. Ed.*]
2. *CPSU in Resolutions*, II, 68.
3. Lenin, XXXIV, 304.
4. Lenin, XII, 57.
5. *CPSU in Resolutions*, II, 69.
6. Lenin, XXXVIII, 137.
7. *Ibid.*, 212.
8. Lenin, XLI, 402.
9. See Lenin, XLI, 30-31.
10. *CPSU in Resolutions*, II, 65.
11. *Ibid.*, 63.
12. *KPSS o Vooruzhennykh Silakh Sovetskogo Soyuza. Dokumenty 1917-1968*. [The CPSU on the Armed Forces of the Soviet Union: Documents 1917-68] (Moscow, 1969), p. 49. [Hereafter cited as *CPSU on the Armed Forces—U.S. Ed.*]
13. *CPSU in Resolutions*, II, 65.
14. Lenin, XLII, 140.
15. See Lenin, XXXVIII, 400, 401.
16. *O podgotovke k 50-letiyu obrazovaniya Soyuz Sovetskikh Sotsialisticheskikh Respublik. Postanovleniye TsK KPSS ot 21 fevralya 1922 goda* [Preparations for the Fiftieth Anniversary of the Formation of the Union of Soviet Socialist Republics: A CPSU Central Committee Resolution Dated 21 February 1972] (Moscow, 1972), p. 10. [Hereafter cited as *Preparations for the Fiftieth Anniversary of the Formation of the USSR—U.S. Ed.*]
17. Lenin, XXXVIII, 268.
18. Lenin, XXXVIII, 274.
19. *Profsoyuzy SSSR v sozdanii Krasnoy Armii. 1918-1920*. [USSR Trade Unions in the Creation of the Red Army 1918-20] (Moscow, 1940), p. 111.
20. *Fifty Years of the Armed Forces*, p. 77.

21. Lenin, XXXIX, 152.
22. *Army Archives*, f. 33988, op. 1, d. 6, 1. 16.
23. *CPSU on the Armed Forces*, p. 103.
24. *Fifty Years of the Armed Forces*, p. 94.
25. Lenin, LI, 31.
26. *Collection of Statutes*, 1919, No. 35, Article 349.
27. *Collection of Statutes*, 1919, No. 48, Article 474.
28. *Izvestiya VTsIK* [Bulletin of the All-Russian Central Executive Committee], 10 Aug. 1919.
29. *Istoriya otechestvennoy artillerii* [History of Soviet Artillery] 111, Bk. VII, p. 408.
30. *Marxism-Leninism Institute Archives*, f. 2, op. 1, d. 14375, 1. 1-3.
31. Lenin, XL, 248.
32. *CPSU in Resolutions*, 11, 180.
33. *From the History of the Civil War*, 111, 16-24.
34. *Army Archives*, f. 6, op. 5, d. 116, 1. 172-75.
35. *CPSU in Resolutions*, 11, 177.
36. *Army Archives*, f. 33988, op. 1, d. 6, 1. 14.
37. Shatagin, p. 211.
38. *Izvestiya TsK RKP(b)* [Bulletin of the Central Committee of the Russian Communist Party (of Bolsheviks)], 7 March 1921.
39. *Istoriya grazhdanskoy voyny v SSSR* [History of the Civil War in the USSR] (Moscow, 1960), V, 78.
40. *Fifty Years of the Armed Forces*, pp. 119-20.
41. *Army Archives*, f. 4, op. 5, d. 64, 1. 2.
42. Shatagin, pp. 211-12.
43. *Fifty Years of the Armed Forces*, p. 158.
44. *Army Archives*, f. 33988, op. 1, d. 12, 1. 8.
45. *Army Archives*, f. 4, op. 3, d. 53, 1. 249.
46. *Ibid.*, 1. 29.
47. *Army Archives*, f. 6, op. 6, d. 24, 1. 9.
48. V. I. Kazakov, *Rol' artillerii v zashchite sotsialisticheskoy Rodiny* [The Role of Artillery in the Defense of the Socialist Motherland] (Moscow, 1959), p. 13.
49. *Army Archives*, f. 6, op. 6, d. 28, 1. 11-13.
50. *Army Archives*, f. 6, op. 6, d. 191, 1. 132.
51. *Army Archives*, f. 6, op. 6, d. 97, 1. 49.
52. *Istoriya bronetankovykh i mekhanizirovannykh voysk Sovetskoy Armii* [History of the Armored and Mechanized Troops of the Soviet Army] (Moscow, 1953), I, 54.
53. *Ibid.*, p. 55.
54. *Institut voyennoy istorii Ministerstva oborony SSSR. Dokumenty i materialy* [Military History Institute of the USSR Ministry of Defense: Documents and Materials], f. 217, op. 259, d. 96, 1. 33. [Hereafter cited as *Military History Institute—U.S. Ed.*]
55. A. D. Tsirlin, *Sovetskiye inzhenernyye voyska* [Soviet Engineer Troops] (Moscow, 1969), p. 18.
56. *Military History Institute*, f. 217, op. 259, d. 96, 1. 34-35.
57. *Army Archives*, f. 25, op. 1, d. 25, 1. 60.
58. *Military History Institute*, f. 217, op. 259, d. 96, 1. 12, 35, 36.
59. Lenin, XXXVI, 26.
60. *Army Archives*, f. 5, op. 1, d. 30, 1. 18-19.
61. *Army Archives*, f. 4, op. 3, d. 1195, 1. 99.
62. *Military History Institute*, f. 217, op. 259, d. 96, 1. 33-34.
63. K. P. Terekhin, A. S. Taralov, and A. A. Tomashevskiy, *Voyny stal'nykh magistraley* [Warriors of the Iron Road] (Moscow, 1969), p. 49.
64. *Tsentral'nyy gosudarstvennyy arkhiv Voenno-Morskogo Flota SSSR* [Central State Archives of the Soviet Navy], f. R-1, op. 1, d. 288, 1. 22. [Hereafter cited as *Navy Archives—U.S. Ed.*]
65. *Navy Archives*, f. R-1, op. 3, d. 19, 1. 11-19.

66. Lenin, XL1, 392.
67. *Army Archives*, f. 4, op. 3, d. 26, l. 117.
68. *Internal Troops of the Soviet Republic*, pp. 109-10.
69. *Ibid.*, p. 123.
70. *Ibid.*, p. 412.
71. *Ibid.*, p. 207.
72. *CPSU in Resolutions*, II, 69-70.
73. *Army Archives*, f. 6, op. 5, d. 116, l. 172-75.
74. *V. I. Lenin i Sovetskiye Vooruzhennyye Sily* [V. I. Lenin and the Soviet Armed Forces] (Moscow, 1969), p. 245.
75. D. A. Voropayev and A. M. Iovlev, *Bor'ba KPSS za sozdaniye voyennykh kadrov* [The CPSU's Struggle to Create Military Cadres] (Moscow, 1960), p. 33.
76. *CPSU in Resolutions*, II, 70.
77. *From the History of the Civil War*, II, 793.
78. *Journal of Military History*, 1960, No. 11, p. 11.
79. *Army Archives*, f. 4, op. 3, d. 52, l. 611.
80. Lenin, XXXIX, 56.
81. *Fifty Years of the Armed Forces*, p. 108.
82. *From the History of the Civil War*, III, 316.
83. I. I. Khodorovskiy, *Pamyatka kommunistu na fronte* [Memorandum for the Party Member at the Front] (Moscow, 1919), pp. 6-7.
84. Lenin, XL, 240.

PART II: THE ORGANIZATIONAL DEVELOPMENT OF THE SOVIET ARMED FORCES BETWEEN THE TWO WORLD WARS

Chapter 4. The Transition of the Armed Forces to a Peacetime Footing

(1921-23)

1. The Communist Party's Policy on Military Organizational Development. Reduction of the Red Army's Numerical Strength

Victory in the Civil War strengthened the position of the young Soviet state at home and abroad. The Soviet people were able to concentrate their main efforts on the peaceful economic and cultural development of the Leninist plan for building socialism.

At the same time, the Communist Party did not forget the constant threat posed by the aggressive capitalist powers. "... Having begun our peacetime construction," instructed V. I. Lenin, "we shall do our utmost to continue it uninterrupted. At the same time, comrades, be on the alert, preserving our Red Army's and our country's defensive capability as the apple of your eye. . . ." The party proceeded from the premise that the country's defensive capability could be maintained only on a sound economic basis of socialized agriculture, socialized industry, and domestic defense production.

Beginning the construction of a sound economic foundation for socialism, the Communist Party and the Soviet nation met immense difficulties. The obsolete technological base inherited from the previous regime had been ravaged by four years of imperialist war and three years of the Civil War, sustaining huge losses valued at 50 billion rubles in gold.²

All sectors of the national economy were in decline. The 1920 output of heavy industry barely exceeded a seventh of the 1913 level. Steel production had dropped to 200,000 tons annually, and the outputs of iron, cement,

and cotton fabrics were merely 2.7 percent, 2.4 percent, and 4 percent of their prewar levels.³ Most factories and plants were shut down due to lack of fuel and raw materials. Many ore and coal mines were flooded. Rail transport was disorganized. The yield of agricultural produce in 1920 was a little more than half its prewar level. There was a nationwide shortage of provisions, which was most acute in the industrialized regions.

There were also difficulties of a political nature. In those difficult times for the Soviet state, the Trotskyites, Bukharinites, and other antiparty groups spoke out against party and state policy. They tried to undermine the party's unity and to weaken the dictatorship of the proletariat.

An acute intraparty struggle developed over the organizational development of the Soviet Armed Forces. Trotsky and his supporters sought a prompt transition to a militia-type army.

The party resolutely rejected these ultraleftist demands, which were tantamount to a bid for the liquidation of the regular Red Army. In a letter dated 12 January 1921 and addressed to all party organizations, the RKP(b) Central Committee declared that the Army must be retained, and its combat efficiency increased. "The day we relax our strength will be the day of a renewed onslaught against us," the Central Committee warned. "We shall be committing a frightful crime against the revolution if we forget this. . . .

"The current transitional period is fraught with great danger for the Army and for the revolution. Any incautious step may prove fatal."⁴

The 10th RKP(b) Congress, held in March 1921, formulated a program for restructuring the Red Army during the postwar period. The congress consolidated the Leninist tenets on ways in which the defenses of the country could be strengthened and the combat efficiency of the Soviet Armed Forces improved under peaceful socialist construction.

The congress pronounced the agitation for a prompt transition to a militia system to be incorrect in principle and potentially dangerous in practice, adding that "for the immediate future, the basis of our Armed Forces must continue to be the present Red Army, with its numerical strength reduced as much as practicable by the release of the top age groups, but with an augmented proletarian and party-member content."⁵ The congress permitted a partial transition to territorial militia formations, initially in those regions with the most united proletarian populations (Petrograd, Moscow, and the Urals). Later, provided that favorable reports on the initial militia experiment were forthcoming, and provided that the Soviet state found itself in a stronger position domestically and internationally, territorial formations would be created elsewhere.

Aware that a sharp reduction in the numerical strength of the Red Army would weaken its firepower and striking power, the congress insisted "that particular attention be paid to the integrity of technical units in the aviation, artillery, engineer, armored train, armored car and machine gun categories, ensuring that they are fully equipped and armed, and taking all possible steps to increase their morale and combat capability. . . ."

The 10th RKP(b) Congress adopted a special resolution on the regeneration and all-out strengthening of the Red Navy on a planned, scientific basis.

The congress paid particular attention to improving the supply of Army and Navy materiel. It called upon the administrative organs concerned "to look after the Army in a competent, efficient, and systematic manner, according it first priority for supply purposes."

The resolution adopted by the congress on military problems was imbued with concern for strengthening the Red Army's proletarian and party-member strata. The resolution reflected awareness of the need for a stronger party-political apparatus and for reinforcement of Army and Navy party organizations. The congress decided not only to suspend the demobilization of party members but also to reenlist those with war experience.

Of paramount importance for strengthening the defense of the country and improving the combat efficiency of the Red Army was the 10th RKP(b) Congress's announcement that the economic, political, and military resources of all Soviet republics were to be united within a single Soviet state. In the resolution "On the Party's Immediate Concerns With the Nationalities Problem," the 10th Congress emphasized that "the common defense interests of the separate Soviet republics . . . dictate their merger into a sovereign union as the only way to save them from imperialist bondage and nationalist oppression. Liberated from 'domestic' and 'foreign' bourgeoisie, the national Soviet republics can defend their existence and defeat the united forces of imperialism only when they have been united as a tightly knit sovereign union. . . ."

The founding of the Union of Soviet Socialist Republics in December 1922 "was a decisive factor in creating favorable conditions to restructure society on socialist principles, in raising the economic and cultural levels of all Soviet republics, and in strengthening the defensive capability and international status of the multinational workers' state."

One of the most important tasks in military organizational development was the further development of Soviet military doctrine. Such doctrine consisted of scientifically grounded views on the nature and goals of a

future war, on how the country and the Armed Forces could be made ready for it, and on ways to wage it.

Formulation of Soviet military doctrine was accomplished under the guidance of the Communist Party's Central Committee on the basis of the theoretical and methodological principles of dialectical and historical materialism.

V. I. Lenin played an enormous role in laying the foundations for Soviet military doctrine. He defined the methods for mobilizing all the people's resources to defend the socialist Fatherland, formulated basic tenets that disclosed the essence and special features of modern warfare, and pointed out the completely new traits that were characteristic of the Red Army—the army of a socialist state.

V. I. Lenin studied in detail the theoretical problems of providing a socialist state with a military organization and preparing it for defense. "Precisely because we are motivated to defend our Fatherland," noted V. I. Lenin, "we say to ourselves: 'For defense we need a strong combat army with strong rear support. . . .'"¹⁰

Great credit is due to V. I. Lenin for working out and substantiating the organizational forms for the Soviet Armed Forces and the bases and principles of their organizational development. V. I. Lenin's works contain profound revelations on the essence and nature of modern warfare. In particular, V. I. Lenin indicated that to understand a war, one must "study the policies which preceded it, which led up to it, and which resulted in it."¹¹ Accordingly, to achieve real insight into the essence of modern warfare, it is necessary to consider the policies of various states and to assess their effects on the international situation.

V. I. Lenin revealed the decisive role of the masses in war and pointed out the growing dependence of warfare on economic factors and on morale. He disclosed the correlation between the ways and means of armed conflict and a country's production methods and level of science and technology.

V. I. Lenin put forward and comprehensively substantiated the proposition that it is necessary to study the enemy and to learn the essence of his military doctrine, the strong and weak points of his army, and his methods of fighting. On this theme, V. I. Lenin wrote, ". . . An army's failure to prepare to master all types of weapons and all means and methods of combat which are, or could be, available to the enemy is foolish, or even criminal, behavior."¹²

The great military leader of the proletariat taught that the organizational development and the direction of the Armed Forces must be on

a strictly scientific basis, and that it is impossible to build a modern army without recourse to science.

The Leninist ideas and tenets on contemporary warfare and the preparation of army and nation for a modern war constitute the cornerstone of Soviet military doctrine. Many of its propositions on military organizational development were promulgated in the 2nd RKP(b) program or in the resolutions of the 8th, 9th, 10th, and 11th RKP(b) Congresses.

M. V. Frunze did much to clarify the essence and content of military doctrine. In his work *A Single Military Doctrine and the Red Army*, he wrote that military doctrine "is the philosophy of a given state, accepted by the armed forces, and determining their organizational development, combat training, and troop leadership. This philosophy reflects the state's prevailing views on the nature of the missions confronting its armed forces and on the manner in which these missions should be accomplished. Such views derive ultimately from the state's class essence but are shaped by the level of development of the country's productive forces."¹³

A prerequisite for formulating a system of scientific views on the basic questions of military organizational development is the ability to benefit by accumulated historical experience. However, as V. I. Lenin recommended, scientific generalization of experience should be done "not merely in the sense of explaining the past, but in the sense of fearless anticipation of the future and of bold practical activity directed toward its realization. . . ."¹⁴ The Leninist principle of historical analysis in close association with the future has exerted a strong influence on the development of the theory and practice of military affairs.

The problem of making the Red Army ready for a future war, taking into account the hypothetical combat capability of a probable enemy, acquired special importance during this period. The 9th All-Russian Congress of Soviets (December 1921) noted that ". . . our new enemies may prove to be better organized, better trained, and better armed than those over whom the Red Army has gained so many glorious victories."¹⁵

This pronouncement dealt a decisive blow to the opinion, widely held in part of the military community, that due to class contradictions, the army of any imperialist state could hardly qualify as a highly organized force, and that a war waged against such an army could be won without undue effort.

The formulation and ratification of theoretical propositions on basic problems in the Red Army's organizational development met with stiff opposition from the Trotskyites. Such opposition peaked at the 11th Party Congress (March-April 1922), after Trotsky had addressed the military delegates to the congress. Not only did he question the need for military

doctrine, he denied the very existence of military science, admitting only that the craft of war and the art of war constitute the sum of skills in military affairs. Trotsky attempted to prove that Marxist-Leninist theory had nothing to do with military affairs. Trotsky and his like-minded supporters considered it quite unnecessary to generalize the experience of the Civil War, inasmuch as the Red Army supposedly contributed nothing to military affairs in the course of it.

M. V. Frunze, K. Ye. Voroshilov, S. M. Budenny, and M. N. Tukhachevskiy, who were among the delegates addressed by Trotsky, showed his position to be completely groundless. They believed that the Soviet world view in military organizational development and in military affairs must altogether depend on Marxist-Leninist theory, on strict conformity with the objective natural laws of armed conflict, on comprehensive analysis and recognition of political, economic, and technical factors, and finally on military experience.

M. V. Frunze pointed out that in future encounters with the enemy, the Red Army would have to deal with the strong, well-organized, and well-equipped armies of bourgeois states. It would be possible to defeat them only if all military organizational development, as well as the training and indoctrination of personnel, were put on a scientific footing. He refuted the affirmation of the Trotskyites that the new state regime and social order had not affected the nature of the Armed Forces or their art of war. The advent of a new policy was reflected in military affairs in their entirety. The Soviet regime had given rise to radical changes in the character and historical role of the Army and Navy, in the principles underlying their organizational development, in the forms of armed conflict, and in the ways and means of conducting it. Vividly reflected in all this was the class nature of the Red Army as the armed bulwark of the dictatorship of the proletariat. By its resoluteness and its revolutionary character, the proletariat had made an indelible imprint on the methods of conducting the combat actions that characterized the Civil War period. These actions were active, highly mobile, and offensive in nature. These characteristics were a result of the actual conditions that prevailed during military operations, and of the fact that the Soviet Armed Forces were headed by elements imbued with the active ideology of the working class.

The views of M. V. Frunze on the principal theoretical and methodological questions of military organizational development were approved by a majority of military delegates to the 11th Party Congress. This was a triumph of the Leninist policy for the further organizational development of the Red Army and Navy by a single Soviet military doctrine.

The Communist Party demonstrated convincingly that Soviet military doctrine and Soviet military science differed radically from their bourgeois

counterparts in their world outlook and sociopolitical basis.

Formulating its policy on peacetime military organizational development, the Communist Party decided to retain a regular army. The long-term aim of establishing a territorial militia system would stand, with a gradual transition to this system as the military and international situations permitted. The Revolutionary Military Council of the Republic then proceeded to implement the party's military policy on the basis of the 10th and 11th RKP(b) Congress resolutions and V. I. Lenin's instructions, which jointly constituted the party's program for reorganizing the Red Army during the postwar period.

The most pressing problem confronting the Soviet state at the end of the Civil War was reduction of the Armed Forces. It was not economically feasible at this difficult time to maintain an army of so many millions. At the end of 1920, the combined strength of the Red Army and Navy was 5,500,000 men,¹⁶ 83.4 percent of whom were conscripts and 16.6 percent of whom were volunteers.¹⁷

The postwar demobilization of the Army and Navy was an exceptionally complex and quite unprecedented problem. In particular, moving millions of demobilized men during an acute fuel crisis attended by chaos in the transportation system was extremely difficult. Also formidable was securing employment for hundreds of thousands of workers and peasants who had served in the Red Army.

During November and December 1920, the Soviet government and the party's Central Committee, headed by V. I. Lenin, did an immense amount of work on reducing the Armed Forces' numerical strength. An instruction was issued at the end of November to reduce the Army by not less than 2 million men.¹⁸ Specifically, the following reductions were made under the Red Army High Command's plan: rifle troops, from 55 divisions to 45 divisions and 6 independent brigades (from 1,972,000 to 1,370,000 men); cavalry, from 23 to 21 divisions (from 228,000 to 126,000 men); internal service troops, from 36 to 20 divisions (from 648,000 to 360,000 men); reserve troops, from 600,000 to 300,000 men; and technical troops, from 187,000 to 81,000 men. The strength of rear units and establishments was reduced by more than half (from 1,520,000 to 703,000 men).¹⁹ A government commission was formed on 27 December to deal promptly and efficiently with demobilization problems. It included F. E. Dzerzhinskiy, M. I. Kalinin, E. M. Sklyanskiy, and high-ranking representatives from the War Department, trade unions, transportation system, and other organizations. Similar commissions were created locally.

Due to a number of objective causes, demobilization proceeded slowly. By the spring of 1921, the Army's strength had been reduced by only 800,000 men.

In April 1921, aware of the demobilization statistics, the party's Central Committee made a new decision about the reduction of the Armed Forces' strength. In a letter to G. M. Krzhizhanovskiy, head of the State Planning Commission of the Republic, V. I. Lenin proposed that the Army's strength be reduced to 1,600,000 men by the autumn of 1921, and to 800,000 men by the autumn of 1922.²⁰

Accordingly, rifle troops were reduced to 35 divisions and 23 independent brigades (830,000 men in all); cavalry was reduced to 16 divisions (about 100,000 men). Reserves and internal service troops were disbanded.

The following levels were set for the strength of other branches, establishments, and institutions: for technical troops, 117,000; for troops in the universal military training system (together with training units), 72,000; for military educational institutions, 150,000; for fortified regions, 10,000; and for rear units and establishments, 369,000. As a result, by the end of 1921 the Red Army's strength had dropped to 1,629,000 men.²¹

At the beginning of September 1921, the Red Navy (35,000 men), troops of the All-Russian Extraordinary Commission (130,000 men), special purpose units (50,000 men), and escort troops (10,000 men) were attached to the Red Army for pay and allowances.

The next phase of the demobilization began in September 1921 and was completed in October 1922. The strength of the Armed Forces had been reduced to 800,000 men, thus reaching the figure set by V. I. Lenin.²²

However, to support even that number of troops was too difficult for the country's economy. On 18 December 1922, a plenary session of the RKP(b) Central Committee decreed that the Armed Forces' strength was to be reduced to 600,000 by 1 February 1923, with the stipulation that this was the minimum figure compatible with the security of the Soviet state. The reduction in strength was to be compensated by improvements in armament and combat equipment.²³

The party's Central Committee and the Soviet government paid constant attention to the demobilized servicemen. In a special circular, the Central Committee noted the following: "All the way from his barracks to his home, the demobilized Red Army man must be surrounded by the care and concern of the entire government and party apparatus. Additionally, the troops' economic well-being must be first and foremost, while agitation and propaganda matters should be kept in the background; only if economic and transport tasks are effectively handled can agitation and propaganda yield positive results."²⁴

Special commissions were set up for the most important rail routes to deal efficiently with all questions on movement of the demobilization trains and servicing of their passengers.

The Soviet government took steps to improve the economic and personal well-being of the demobilized servicemen. A Council for Labor and Defense resolution dated 25 February 1921 authorized the appropriation of funds for outfitting ex-servicemen with clothing, including underwear and footwear. A resolution dated 9 March dealt with rendering aid to servicemen released to long-term furlough by providing them with seed, agricultural implements, monetary grants, and so on.²³ These and other measures by the Communist Party and the Soviet government were a manifestation of their tremendous concern for the Army.

Thus, the organizational development of the Red Army under peacetime conditions proceeded in accordance with the policy formulated by the Communist Party. V. I. Lenin said that "we think that the wealth of wartime experience gained by the Red Army and its leaders will now help us to make it a better army."²⁴ Reduction of the Armed Forces' numerical strength went hand in hand with retention of their excellent combat efficiency.

2. The Armed Forces' Transition to a Peacetime Organization. The Beginning of the Territorial Militia

Putting the Army on a peacetime footing and starting a territorial militia system required a restructuring of the military command and control elements and a review of the configuration of the Armed Forces and the organization of all branches.

At the beginning of 1921, the Revolutionary Military Council of the Republic passed a resolution that reorganized the central military apparatus. The Field Staff and the All-Russian Main Staff were merged to form a single RKKA Staff.²⁵ As a result of the restructuring process during 1921-23, the central apparatus of the War Department was reduced to less than a fifth of its original size.²⁶

The administrative organs were also reorganized at the front and military district levels. At the beginning of 1921, the elimination of field directorates at the front and army levels was begun. As political and administrative boundaries were changed, some military districts were eliminated and others were combined. At the end of 1923, the military jurisdictions remaining on the territory of the USSR were as follows: two fronts (the Western Front and the Turkestan Front); six military districts (Moscow, Petrograd, Volga Region, Ukrainian, North Caucasian, and West Siberian); and two independent armies (the 5th Army and the Cauca-

sian Army).²⁹ The directorate in command of troops for the Ukraine and Crimea had front status. Each front, army, and border military district was headed by a revolutionary military council, whereas each internal military district was headed by its commander of troops.

Reorganization of the military commissariats at the provincial and lower district levels proceeded by reducing the number of commissariats and their numerical strength while gradually increasing the area administered by a single commissariat. The basic functions of local military organs continued to be registration for the draft and mobilization management.

Reduction of the Army's numerical strength and the impending transition to a mixed system of manning required a second look at its organizational structure. On this question, the Communist Party and the Soviet government proceeded from the position that the foundation of the Armed Forces must be the ground forces, which had a crucial role to play in the defense of the Soviet state.

The Ground Forces, as a service of the Armed Forces, took shape and developed organizationally during the armed conflict with the White Guards and interventionists. Toward the end of the Civil War they consisted of rifle troops, cavalry, artillery, technical troops, and various auxiliary units.

The organizational structure of units and formations underwent changes during 1921-23 due to the virtually continuous reorganization of rifle troops. This caused difficulties in command and control as well as serious supply problems. In the summer of 1922, tables of organization and equipment were authorized for two types of peacetime rifle divisions: border and internal. A border rifle division had 8,705 men, 20 guns, and 74 machine guns; an internal rifle division had 6,725 men, 11 guns, and 76 machine guns.³⁰ The brigade level was eliminated from the rifle division, which then assumed a regimental organization.

Table 1. Changes in the Rifle Division's Authorized Strength.³¹

Entity	1921 T/O&E	1923 T/O&E
Personnel	41,600	15,300
Horses	13,300	6,500
Rifles	17,242	6,508
Heavy machine guns	284	74
Light machine guns	372	78
Artillery	64	24
Motor vehicles	32	14
Wagons and carts	4,500	2,100

Despite the considerable reduction in the rifle division's numerical strength, its basic firepower was preserved. Whereas the 1921* table of organization and equipment provides for 2.4 artillery guns and 10 heavy machine guns per rifle battalion, the corresponding figures for the 1923 table are 2.6 and 8.2.

Between 1921 and the end of 1923, the number of rifle formations was reduced from 124 to 49.³² The organizational structure of the rifle troops was altered by the introduction of a new level into the chain of command—the rifle corps. This higher tactical formation consisted of 2-3 divisions. By the end of 1923, there were 17 rifle corps administrations.³³

Cavalry was the Red Army's second largest branch in numerical strength. When the Army as a whole was put on a peacetime footing, it was decided that its cavalry should be further developed and made stronger. This decision was made because of the important role cavalry had played during the Civil War and because of the nature of the missions it would be called upon to perform under the prevailing conditions.

Cavalry was divided into two categories: organic, which was to function as a component of the rifle troops; and army (strategic), which was intended to accomplish missions independently. Army cavalry, whose component formations were the corps, division, and brigade, was the sole means of mounting mobile strikes available to the ground forces at the time.

During the reduction and reorganization of 1921-23, the number of cavalry formations (divisions and independent brigades) was reduced from 34 to 19. Cavalry units and formations differed in their organizational structure as well as in armament and strength. A cavalry division consisted of 4 to 6 regiments. There were 3 to 4 saber troops in a regiment.³⁴

Artillery also underwent a substantial reorganization. Its materiel had been worn out by two wars and required repair or replacement. During the first years of peacetime reconstruction, the development and manufacture of new artillery systems was a very difficult matter. Therefore, units were largely outfitted with guns left over from the Civil War. Their restoration or repair was urgently carried out in domestic plants. In 1923, scrutiny of the entire ordnance inventory yielded only 1,260 serviceable guns, all of which were issued to the troops.³⁵

Most of the guns were allocated to rifle or cavalry units, thus constituting organic artillery. The largest artillery unit was the battalion. Special purpose artillery, armed with 107mm and 155mm cannons and

*The 1921 rifle division consisted of three brigades with three 3-battalion regiments in each, so that there were 27 battalions in all.

with 152mm and 305mm howitzers, accounted for 5.5 percent of all artillery at the disposal of the ground forces.

The reorganization of technical troops (armored forces, and troops in the engineer, signal, and railroad categories) was an attempt to retain and strengthen their basic nucleus at the expense of rear services and auxiliary units.

At the beginning of 1921, the composition of the Soviet armored forces was as follows: 122 armored trains of various types, 49 armored car detachments (about 300 armored cars in all), 10 tank detachments (about 80 tanks in all, mainly foreign makes), and a considerable number of diverse auxiliary units. Altogether, the armored forces included 208 independent units with a strength of 28,660 men.³⁶

In August 1923, the tank detachments were merged as a single formation called the tank squadron, which improved training, maintenance, and supply. By October, all that remained of the armored forces were 70 independent units with a strength of 7,900 men.³⁷

Restructuring the engineer troops began in 1921. The engineer battalions of the rifle divisions were disbanded; each was replaced by an independent engineer company and a road and bridge company. By the end of 1923, after restructuring and reduction, the engineer units that were not components of infantry or cavalry included 5 pontoon battalions, 2 electrical engineering companies, 2 camouflage companies, 5 self-propelled pontoon detachments, and 27 motor transport detachments.³⁸

At the beginning of 1921, the signal troops consisted of numerous small units. During the next 2 years, the independent companies and battalions were merged to form 10 signal regiments, and the radio units withdrawn from rifle divisions and rifle corps were merged to form 8 independent radio battalions.³⁹

At the beginning of 1921, there were 12 brigades of railroad troops. By the end of 1923, only 6 brigades remained.⁴⁰

As the Ground Forces were put on a peacetime footing during 1921-23, the ratio between the rifle troops, cavalry, and technical troops changed. The rifle troops diminished by a factor of almost 6, but rose from 32 percent to 40 percent of the Ground Forces; cavalry diminished by a factor of 2.7, but rose from 4 percent to 10 percent; and the technical troops diminished by a factor of almost 5, but rose from 6 percent to 11 percent. The overall rise in the relative numerical strength of the rifle troops, cavalry, and technical troops from 42 percent at the beginning of 1921 to 61 percent of the Ground Forces at the end of 1923 was achieved at the expense of rear services and auxiliary troops.⁴¹

A program for the organizational development of the Red Navy under peacetime conditions was formulated by the 10th RKP(b) Congress. In accordance with a congressional resolution, in 1921 over 1,200 party members who had been enlisted men were returned to the Navy from civilian employment to promote its revival and development.

In October 1922, the Leninist Young Communist League took the Red Navy under its patronage.* During the first year of such patronage, the Young Communist League sent 7,766 members into the Navy, not counting those who entered naval educational institutions.⁴²

At V. I. Lenin's suggestion, the Expedition for Special Underwater Operations was formed in 1922 to refloat vessels that had foundered in the Black Sea. Of 53 sunken warships and 700 sunken transports, only 27 large warships proved worth salvaging for combat purposes.⁴³

The country celebrated Red Navy Week in January 1923. In connection with this, the party's Central Committee sent a letter to all its provincial commissariats pointing out the importance of this campaign for strengthening the Red Navy.

Owing to the efforts of the Soviet people to rebuild the Red Navy, warship after warship was refitted and recommissioned. During 1922-23, the Baltic Fleet gained the battleship *Marat* (formerly the *Petropavlovsk*), the cruiser *Aurora*, 8 destroyers, 9 submarines, 20 minesweepers, and 17 escort vessels.⁴⁴ About 60 warships and auxiliary vessels were commissioned in the Black Sea Fleet during the same period.⁴⁵ In the summer and autumn of 1922, training cruises and maneuvers were conducted by the Baltic Fleet and the Black Sea Fleet for the first time since the end of the Civil War.

At the beginning of 1921, combat aviation had an assorted collection of 228 obsolete airplanes.⁴⁶ The shortage in combat airplanes for the ground forces reached 72 percent of the number authorized, and there were no seaplanes at all.⁴⁷ Due to lack of fuel, materials, and skilled labor, the aircraft production plants operated sporadically and were engaged mainly in repair work.

Prompt steps to strengthen Soviet aviation were dictated by defense needs. In January 1921, at V. I. Lenin's suggestion, the Council for Labor and Defense passed a special resolution instituting a minimum program for Air Force development. Despite the country's extremely difficult economic position, an RKP(b) Central Committee plenary session in the summer of 1922 ordered the War Department to appropriate 35 million

*[A relationship between two organizations in the USSR whereby one 'adopts' the other—U. S. Ed.]

rubles in gold for aircraft development.⁴⁸ The N. Ye. Zhukovskiy Air Force Academy was created from the Red Air Force Engineering Institute to train aeronautical engineers and aircraft designers. Theoretical and experimental research on aircraft design and production was concentrated in the Central Aerohydrodynamics Institute, founded in 1918 at V. I. Lenin's bidding.

The attention of the entire Soviet people was focused on the development of our aviation. Funds raised by the Society of Friends of the Air Force alone met the cost of about a hundred aircraft.

The measures adopted by the party and government were a first step toward providing the Soviet Air Force with a logistical base.

Organizationally, the Air Force was divided into ground troop aviation, naval aviation, and lighter-than-air units. As of 1 October 1923 ground troop aviation had about 300 airplanes, 234 of which formed 18 independent reconnaissance and fighter detachments with 6 airplanes in each and 7 squadrons with 18 airplanes in each. Naval aviation had 36 aircraft. Its principal organizational unit was the seaplane detachment, which contained 6-8 aircraft.⁴⁹ There were 10 independent lighter-than-air detachments, with a single captive balloon in each.

While the Armed Forces were put on a peacetime footing, the Communist Party and the Soviet government took steps to reorganize the rear services.

Changes took place in the supply system. State procurement of material commodities and fulfillment of military needs were made the responsibility of the central supply directorates. In 1923, the task of providing the troops with ordnance, armor, engineer equipment, signal means, and other materiel was placed on the branch concerned.

In 1922, uniforms and insignia were standardized by branch, and standard Red Army rations were introduced.

The considerable reduction in the Armed Forces' numerical strength, in conjunction with the need to safeguard the socialist state, made mandatory a transition to a system that would guarantee adequate military training for the bulk of draftees and would permit rapid deployment of a massive army in an emergency. Given the prevailing terms of service, permanent units and formations could train in a year only about 30 percent of the youths reaching draft age.⁵⁰ The majority of citizens fit for military service had no opportunity to receive military training. It was necessary to have a regular army of limited size that was not a burden on the state and was capable of training draftees without interfering appreciably with their productive labor. These requirements were most fully met by a mixed

system of Armed Forces development that combined regular and militia components.

At a meeting of the military delegates to the 10th All-Russian Congress of Soviets in December 1922, it was noted that a regular army must remain the basic organization. However, inasmuch as a regular army could not train the entire contingent of draftees, a territorial militia system would be necessary for instructing the public in military affairs. About this, M. V. Frunze said that "... we cannot build our defense solely on the so-called regular units. If we wish to deploy as many divisions as a future war situation will probably require, then we must put our trust not only in regular divisions but also in divisions of another order. . . ."¹¹

For the introduction of a territorial militia system, there were certain conditions and prerequisites.

During the first two postwar years, the Soviet land made progress in agriculture, industry, and transportation. The standard of living enjoyed by the working class improved. In a report to the 4th Congress of the Communist International in November 1922, V. I. Lenin said that "... the New Economic Policy has already yielded positive results. We already have proof that we, as a state, are in a position to trade, to consolidate our position in industry and agriculture, and to move forward."¹²

As the domestic political situation improved, the class basis for the dictatorship of the proletariat became firmer. Of paramount importance to strengthen Soviet authority and national defense was the founding of the Union of Soviet Socialist Republics. The international status of the Soviet Union improved considerably. Although the danger of hostilities persisted, there was no longer a direct military threat.

The Communist Party was aware of the difficulties complicating the transition to a mixed system of military organizational development. Expressing the opinion of the party's Central Committee, M. V. Frunze said that despite the economic advantages of the territorial militia system, it should be introduced gradually, and only within definite limits. "In any case," explained Frunze, "there can be no question of dispensing with regular units completely. All that is open for discussion is the proportion in which the two basic elements—the regular and territorial components—will be present in our military development."¹³

Preparatory work for the introduction of territorial units began at the end of 1922. A special commission headed by M. V. Frunze made recommendations on how certain units of ground troops, mainly infantry, should be put on a territorial footing.

On 12 January 1923, on instructions from the party's Central Committee and the Soviet government, the Revolutionary Military Council of the USSR issued an order to convert nine regular rifle divisions and one militia brigade into territorial divisions.⁵⁴ The newly created formations were stationed in the Moscow Military District and in its Petrograd, Ukrainian, Volga, Western, and North Caucasian counterparts.

Territorial organizational development needed guidance from party organizations and day-to-day help from soviet, professional, and social organizations. Accordingly, the party's Central Committee passed a number of resolutions obliging its local organizations to render such aid to the military command elements concerned.

The 12th Party Congress (April 1923) required the party organizations of regions where territorial divisions were being formed "to work up a widespread campaign to explain the essence of this new (to Soviet Russia) system of military organizational development, doing their utmost to ensure its success, and taking advantage of the militia unit assemblies to make an agitational impact on the countryside."⁵⁵

On 18 June 1923, the party's Central Committee sent its organizations a circular explaining party policy on military organizational development. The circular disclosed the essence and principal features of the territorial militia system and defined the tasks of party organizations. This document explained: "In political and military-technical training and combat efficiency, the territorial divisions presently in the making must be, in general, on a par with their regular counterparts, differing from the latter only in the fact that . . . the nucleus of permanent cadres maintained at public expense is only about a tenth of the authorized wartime strength. The other nine-tenths, including private soldiers and junior command and administrative personnel, although borne on the books of the territorial division, only assemble for a short time periodically for instruction, training exercises, and other activities, being allowed to live at home and engage in civilian employment the rest of the time, thus sparing the state the expense of maintaining them."⁵⁶

The Central Committee emphasized that introducing the territorial militia system was unavoidable, being dictated primarily by the state of the national economy. The Central Committee's circular urged that special attention be paid to the territorial divisions, that patronage be conferred on them, and that there be direct involvement in the organization and conduct of party-political work among personnel.

Initial experience in the creation of territorial formations prepared the way for legislative consolidation of this new form of military organizational development. On 8 August 1923, the Central Executive Committee and the Council of People's Commissars of the USSR issued a decree

outlining the organizational structure of territorial units, the manning procedure, and the conditions of service. Compulsory civilian military training for the workers was introduced concurrently.

The Central Executive Committee of the USSR authorized the Revolutionary Military Council of the Republic to induct citizens 16 years of age for military training. Such training, which consisted of calisthenics and elementary instruction in military affairs, was conducted by civilian organizations under the guidance and supervision of local organs of the War Department. From age 19 until the year of conscription, an individual subject to military service was required to undergo a premilitary training course not more than 2.5 months in length. Upon attaining call-up age, such an individual was required to undergo up to 8 months of military training in a territorial unit within 5 years. After this, the individual was enrolled in the reserve and was subject to refresher training no more than three times during the entire span of such enrollment, for a period not exceeding 1 month on each such occasion.

An important principle of the territorial system was the proximity of units to the home and workplace of the individual subject to military service. The territorial manning areas were usually made to coincide with the administrative units. Thus, the manning area for a division was coextensive with a province; for a regiment or battalion, with small rural districts; and for a company, with still smaller districts. Such a stationing arrangement was convenient for registration of temporary personnel, for administrative purposes, and for close contact between the military command and local party and soviet organs.

The territorial militia system introduced in the USSR was intermediate between a regular army and a militia properly so called. On the one hand, the goals and missions of the territorial troops approximated them to an army of the regular type, as in peacetime these troops were tantamount to a school for converting human resources into trained reserves, while at the outbreak of war they could be deployed organizationally and form new units in the same way as regular units. On the other hand, the nature and content of their combat and political training—in a peacetime army—and their method of recruitment, approximated them to an army of the militia type.

Such was the originality of the territorial militia system in the USSR. The territorial system was applied primarily to rifle troops and partly to cavalry. By mid-1923, almost 20 percent of all rifle divisions had been put on a territorial footing. In the overwhelming majority of cases, the technical troops retained their regular structure.

When the Civil War was over, the imperialist countries resorted to subversive activity against the Soviet republic. The state border became a

battleground. It was necessary that the organization of border security and the structure of border troops fully safeguard the Soviet state against border infringements during the capitalist encirclement.

On 19 January 1921, V. I. Lenin signed a Council for Labor and Defense resolution on the formation of special troops for the All-Russian Extraordinary Commission. It contained the following passage: "In addition to their other commitments, the troops of the All-Russian Extraordinary Commission are entrusted with the security of the borders of the RSFSR . . . its railroad stations . . . its wharves and jetties."³⁷

On this resolution, the Revolutionary Military Council of the Republic and the All-Russian Extraordinary Commission issued a joint order on 24 January 1921 that all units and detachments guarding the state border were to be transferred, together with their establishments, from the Red Army's jurisdiction to that of the All-Russian Extraordinary Commission. They were also to be removed from the rolls of the Red Army.

This decision helped to improve security and to introduce revolutionary order in the border areas. Border brigades began to be formed from Red Army units that had gone to the border during the Civil War. By the summer of 1921, the formation of border troops for the All-Russian Extraordinary Commission had by and large been completed.

In July 1921, the All-Russian Central Executive Committee ratified a statute on guarding the border of the RSFSR. This statute became the basic legal document governing the activity of the Border Troops and operational elements in guarding the state borders.

On 7 September 1923, the Central Executive Committee ratified a statute on guarding the borders of the USSR. It defined the missions of border security, its rights and responsibilities, the concept of border routine, and the procedure for the use of arms by the troops on guard.

The units and formations of these troops were at the disposal of special departments of the All-Russian Extraordinary Commission. The direction of a unit was by the chief of a special department through the All-Russian Extraordinary Commission chief of troops for the appropriate border area.

As the organs of Soviet authority became stronger, the All-Russian Extraordinary Commission's need for special powers lapsed. The 9th RKP(b) Congress instructed the Presidium of the All-Russian Central Executive Committee to review the statute on the All-Russian Extraordinary Commission and its organs to restrict their jurisdiction and strengthen revolutionary legality. An All-Russian Central Executive Committee decree dated 6 February 1922 abolished the All-Russian Extraordinary

Commission and its local organs. The State Political Directorate (GPU) was created and subordinated to the People's Commissariat for Internal Affairs. With the advent of the USSR, the GPU was transformed into the Unified State Political Directorate (OGPU) and resubordinated to the Council of People's Commissars of the USSR by a Central Executive Committee resolution dated 2 November 1923. Accordingly, the All-Russian Extraordinary Commission troops became first the GPU troops, and then the OGPU troops. They consisted of border, internal, and escort units.⁵⁸

The state border was guarded by units subordinated to the All-Russian Extraordinary Commission and the GPU, and by units and formations under military district commanders. Such an arrangement was recognized as unsuccessful, and on 27 September 1922, the Council for Labor and Defense passed a resolution assigning all land and sea borders to the GPU for safeguarding. The independent GPU Border Corps, with 50,000 troops, was formed for this purpose.⁵⁹ The People's Commissariat for Military and Naval Affairs placed all its border units and formations at the GPU's disposal.

A GPU order dated 28 February 1923 authorized the creation of the Petrograd, Western, Ukrainian, Crimean, North Caucasian, Transcaucasian, Turkestan, Siberian, and Far Eastern border districts. Certain naval forces were included in the make-up of the independent Border Corps to enable it to safeguard Soviet territorial waters. These forces included border flotillas based on the White Sea, Lake Ladoga, the Black Sea, the Caspian Sea, and the Amu Dar'ya River; a detachment of vessels on Lake Chudskoye; and a Pacific Ocean coast guard.

There was a central staff for the GPU Border Corps and a local staff for troop control in each border district and border province.

Organizationally, these troops consisted of independent 3-company battalions with attached cavalry units.

Great importance was placed on training military and political cadres for border duty, as such duty posed problems requiring special as well as military training. To this end, a number of military schools were opened in 1923 to train border-post chiefs. At the initiative of F. E. Dzerzhinskiy, a higher border school was founded in the same year.

By a Council for Labor and Defense resolution dated 19 January 1921, all internal troops except those under the All-Russian Extraordinary Commission were reassigned to the People's Commissariat for Military and Naval Affairs, which assumed responsibility for internal service.

The Internal Service Troops were organized as 3-brigade divisions. Internal formations were manned, supplied, and trained by the People's Commissariat for Military and Naval Affairs, but in the performance of special missions they were subject to the directives, instructions, and orders of the appropriate government department.

Escort units also had a dual subordination: for special duty, they were subordinated to the People's Commissariat for Justice; for all other purposes they were subordinated to the Revolutionary Military Council of the Republic. On 27 September 1922, such units were placed at the disposal of the People's Commissariat for Internal Affairs, but in October of the same year they were merged to form an independent GPU escort corps.⁶⁰

Thus, the country's transition from war to peace made a number of new demands on the Soviet Armed Forces and added considerably to the sociopolitical and organizational principles which already underlay their organizational development. The Red Army began to use the territorial manning system dictated by the prevailing situation.

3. Restructuring the Military Cadre Training System. New Political Indoctrination Tasks

Work with military cadres while the Armed Forces were being put on a peacetime footing acquired specific traits and demanded implementation of a number of practical measures. First of all, it was necessary to reduce the command and administrative personnel considerably, removing individuals who were incapable of carrying out party policy in military organizational development. It was necessary to restructure the training and indoctrination of military cadres from the working class to suit peacetime conditions.

At the end of the Civil War, the Red Army had 130,000 command personnel, about 34 percent of whom were military specialists from the old army.⁶¹ On 1 October 1924, the Red Army had 40,587 officers. This reduction was attended by an increase in the proportion of intermediate command personnel.

By an order issued by the Revolutionary Military Council of the Republic on 5 July 1921, the following were sent on indefinite leave of absence: all command personnel who had reached 50 years of age, regardless of position occupied; regimental commanders and battalion commanders who had reached 40 years of age; company commanders and below who had reached 35 years of age.⁶²

While conducting the reduction and renewal of the military cadres, the Central Committee took care to increase the military's party stratum.

Whereas party members accounted for 10.5 percent of command personnel in 1920, the corresponding figures for 1921 and the beginning of 1923 were 20 percent and 23 percent respectively.

For many commanders and political workers, military service became a permanent profession. In this context, the 10th RKP(b) Congress resolved "to draw the strict attention of soviet, party, and professional establishments and organizations to the need for the utmost improvement in all aspects of the military training setup."⁶³ By this resolution, the system of military educational institutions was reorganized. As far back as January 1921, the Council for Labor and Defense passed a resolution signed by V. I. Lenin that transformed a number of short command courses into military schools with a longer period of instruction.

Despite the fact that he was preoccupied with affairs of state, V. I. Lenin devoted much time to military educational institutions. He visited academies, schools, and courses, addressing the trainees and familiarizing himself with the training process.

The military educational system was designed to give command personnel a good general education and a grounding in military affairs. Three levels of instruction were planned: the first level entailed a 3 to 4 year course in an intermediate military school; the second level consisted either in attending a higher military school or in undergoing an improvement course open to command personnel with active service experience; and the third level was the military academy. Certain accelerated courses were retained, and higher academic courses were organized for higher command personnel promoted in wartime without the appropriate educational qualifications.

As of 1 January 1921, the Soviet Armed Forces had 150 military educational institutions: 3 military academies, 13 higher military schools (improvement course type), 43 military schools (intermediate), 88 command courses, 2 refresher courses, and 1 preparatory course. A year later, the number of military educational institutions had increased to 217, which exceeded the actual requirements of the Army and Navy.⁶⁴ This increase resulted because military educational institutions were regarded not only as centers of learning but as crack military units as well, maintained to preserve the high combat efficiency of the Armed Forces during their demobilization. Later, the number of educational institutions was brought into line with peacetime needs. As of 1 October 1923, there were 78 (not counting academies): 10 higher schools, 55 intermediate schools, and 13 command courses.⁶⁵

Primarily because of the shortage of literate young people, serious problems arose in filling military educational institutions (especially military

schools and command courses) with suitable trainees from among the territorial worker and peasant soldiery.

The party regarded the manning of military educational institutions not merely as a routine problem to be solved within the confines of the War Department but as a matter of national importance. This viewpoint was underlined in the RKP(b) Central Committee letter dated 25 June 1921 "On Enrollment in Military Educational Institutions," which contained the following passage: "As it is urgent for the republic to have consummately trained and politically mature proletarian command personnel, all party and professional organizations must take on the task of bringing the student population of the military educational institutions up to authorized strength, recruiting the most worthy and socially conscious comrades from among the worker and peasant masses."⁶⁶

There was a substantial improvement in manning military educational institutions with trainees when the measures outlined by the party's Central Committee were implemented.

The Central Committee explained the following in the letter, dated 15 June 1922, "On the Recruitment Campaign for the Military Educational Institutions": "The command personnel of any army are the bearers of its martial spirit and class ethos. . . . The emergence of our command personnel from the working classes—from the proletariat and the peasantry—guarantees our army's revolutionary character, the indissolubility of its bond with the working people, and its pursuit of a noble single goal: the campaign against capital, for the cause of socialism and fraternity among peoples."⁶⁷

The effort made by the Communist Party, the Young Communist League, and the trade unions was successful. From 1922 to 1923, the labor stratum in the military schools increased from 28.5 percent to 36.3 percent.⁶⁸ In 1923, 62 percent of the students in the Red Army Military Academy were workers or peasants, and 76 percent were party members.⁶⁹

Concomitantly with the organizational restructuring of the military cadre training system, the first principles of officer training and indoctrination were formulated. The Communist Party required that supervisory personnel have a proper understanding of party policy, of the tasks confronting the Soviet state and its Armed Forces, and of modern warfare, its nature and features; that they study the history of warfare in depth, applying its lessons to everyday practice; that they deal creatively with questions of military science; and that they develop common views on all basic problems of military affairs, this being a very important condition for transforming the Armed Forces into a powerful and cohesive combat organization.

V. I. Lenin expected commanders, commissars, and political officers to acquire a profound, creative understanding of Marxist theory, to solve problems of military organizational development in a manner satisfying the state's demands, to study military science, to master the art of war, and finally, to apply theoretical knowledge effectively in practical activity. Of great importance for officer indoctrination were V. I. Lenin's instructions on the selection and placement of party, soviet, and military workers. Of similar importance was his insistence that they be efficient, exacting, and considerate toward subordinates. V. I. Lenin also taught respect for the practical experience of the masses, and sharply criticized "red tape," abuse of authority, and putting on airs on the strength of past laurels. In this context, V. I. Lenin said that "conceit makes a person look stupid, despicable, and ridiculous."⁷⁰

The Communist Party and the Soviet government attached great importance to tempering command and supervisory cadres ideologically—to arming them with Marxist-Leninist theory—because a profound knowledge of Marxist-Leninist dialectics is essential to properly understand the workings and nature of warfare and the resultant features of armed conflict.

Expressing what the party expected of command and supervisory personnel, M. V. Frunze said that the Soviet commander "needs to know not only military affairs narrowly defined; he must be fully armed with a whole series of disciplines. He who would now be a commander in the full sense of the word must know more than any of his predecessors ever knew. Not only must our commanders be masters of military affairs, they must also be versed in political and economic matters, because . . . without a knowledge of such factors, an army cannot be led successfully."⁷¹ These basic methodological principles for training cadres were adopted by all military educational institutions.

The military educational institutions continued to turn out new cadres while reorganization was in progress and during the transition of the Armed Forces to a peacetime footing. During the 1922-23 academic year alone, they produced about 13,000 line commanders, most of whom (70 percent) were graduates of command courses.⁷² The military schools (higher and intermediate) accounted for 28.5 percent, while the remaining 1.5 percent came from the military academies and improvement courses.

Whereas on 1 January 1921, only 58.5 percent of the Red Army's commanders had a military education, the corresponding figure for 1 January 1923 was 88 percent.⁷³ Despite this quite high percentage, the level of military education possessed by command personnel was far from adequate. For example, as of 1 January 1923, only 2 percent of them had a higher military education, and only 14.5 percent had an intermediate one. The overwhelming proportion of command personnel had received their military education through short courses, training teams, and so on.⁷⁴

The party's Central Committee passed a number of resolutions aimed at strengthening political worker and military commissar cadres. In the letter "On the Red Army's Commissars and Political Workers," the RKP(b) Central Committee deemed necessary an extensive renewal of the commissar and political worker personnel as an important measure to maintain the Army's combat efficiency.⁷⁵ During the latter half of 1921 and the beginning of 1922, specially created examination boards verified whether military commissars and political workers possessed the needed qualifications. As of mid-1922, there were 19,000 political workers in the Armed Forces.⁷⁶

The conference of military delegates to the 11th Party Congress focused attention on the need to put into good order the training and retraining of political personnel. The existing political worker courses under the political directorates of military districts, lacking uniformity in duration and in programs of study, no longer met the new and growing requirements. Therefore, substantial changes were made in political personnel training during 1921-23. The military district courses were merged to form military political schools with a standard program of study and a 2-year course of instruction. These schools were entrusted with training the largest political worker category, that of the political instructor at the company, battery, and equivalent levels.

The Central Military Political School was founded in 1922 to provide political personnel for special units in the aviation, armor, engineer, communications, and other categories. The S. G. Roshal' Naval Political School was founded in 1923.

Much attention was also paid to retraining political workers to improve their military and political knowledge. A special department was opened in military district schools for this purpose.

By a Central Committee resolution, the Higher Political Courses were transformed into the N. G. Tolmachev Military Political Institute in February 1923. Some of the top-ranking political personnel underwent training at the Ya. M. Sverdlov University and at the Institute for Red Professors.

Thus, the unremitting concern of the Communist Party resulted in the creation of a nationwide network of military and military political educational institutions, which ensured the systematic production of cadres from the populace for all branches and services of the Armed Forces. The Army and Navy command personnel were replenished by the best and most progressive elements of worker and peasant youth, among whom were party and Young Communist League members.

V. I. Lenin and the Communist Party paid special attention to the political indoctrination of servicemen, most of whom were illiterate or semilliterate peasants. To turn them into socially conscious, stalwart defenders of the socialist Fatherland, it was necessary to mount a huge political indoctrination program in the Army and Navy, based upon widespread and deep involvement of the party, military, soviet, and Young Communist League communities.

When the war ended, party-political workers were confronted with new problems: to motivate the Armed Forces to improve their combat efficiency under the specific conditions of the transitional period; to convert troop units into a school for the political indoctrination of the workers; and to make Red Army and Navy men, already socially conscious soldiers and sailors, into vigorous builders of a new, socialist society.

Accomplishment of these missions demanded a quest for new forms and methods of political indoctrination work as well as changes in the organizational structure of political organs and of party and Young Communist League organizations. An indication of the attention paid to party-political work is provided by the fact that such work was discussed regularly at meetings of political personnel in divisions, armies, and military districts. The most important problems were discussed at meetings of the military delegates to party congresses and conferences.

The 10th RKP(b) Congress, in determining the organizational development of the Armed Forces, affirmed the need to reinforce party-political organs and to strengthen their guiding role in the Army and Navy. The congress condemned the destructive attitude of the Trotskyites and other antiparty elements who sought radical changes in the form and function of the party-political apparatus and wanted to transform the political section from a party organ into a cultural and educational establishment. The congress decided to retain the Red Army's political apparatus in the form that had been three war years in the making. It was to be improved organizationally and was also to have closer connection with local party organizations, while preserving, however, its autonomy."

Taking consideration of this decision, the Revolutionary Military Council of the Republic enacted a statute in March 1922 creating the Political Directorate of the Revolutionary Military Council. It contained the following passage: "Management of organizational, administrative, political, and party work in the Red Army and Navy, which is hereby delegated to the Political Directorate of the Revolutionary Military Council, is to be carried out on the basis of Revolutionary Military Council orders and instructions and RKP(b) Central Committee resolutions."

From February 1921, political education work in the Red Army and Navy was managed by the Main Political Education Committee, which

was subordinate to the People's Commissariat for Education. However, experience proved that this committee was not in sufficiently close touch with Army and Navy life to perform satisfactorily. Therefore, at the Central Committee's bidding, such management reverted to the Red Army Political Directorate at the end of 1922.⁹

Party-political work in the Navy, which had previously been managed by various sections of the Political Directorate of the Revolutionary Military Council, was turned over to a newly formed naval section headed by the directorate's assistant chief of naval affairs.

The political directorates of a number of disbanded fronts were transformed into military district political directorates. Political organs in the Navy also underwent reorganization. The Baltic Fleet and the Black Sea Fleet each got a political directorate, and political sections were formed in flotillas.

In June 1921, the party's Central Committee ratified a statute on relations between the Red Army's political sections and RKP(b) party organizations. This document explained the functions of Army political organs and clarified their relations with local party organs, emphasizing the indissoluble bond between the Army and the people.

The Central Committee took steps to strengthen the party nucleus and the social structure in the Army and Navy. The 11th RKP(b) Congress required party organs to redraft all improperly demobilized party members. This brought the return of 18,500 party members to the Army during 1922 alone. The percentage of party members in the Army rose from 4.8 percent to 10.5 percent between the 10th and 12th RKP(b) Congresses. The proletarian nucleus in the Armed Forces rose from 15 percent in 1920 to 17.9 percent in 1923.¹⁰ Because of this, there was an improvement in the Army's social structure and a stronger party influence in its ranks.

On the basis of the congressional decisions and the Central Committee's instructions, the principles of party-political work and its goals and missions under peacetime conditions were formulated. Progress was impeded not only by the unprecedented nature and features of postwar development in the Army and throughout the country, but by the vulgarizing posture adopted by the Trotskyites toward party-political work. The 2nd All-Russian Congress of Political Educationalists (October 1921) did much to overcome mistaken views on this matter. In a special resolution, the congress stressed that political education work in the Armed Forces must be tied closely to increasing the combat efficiency of the Red Army and Navy.¹¹

Important guidelines on party-political work were given at the 11th All-Russian RKP(b) Conference. Having ratified the proceedings of the

11th Conference, the 11th RKP(b) Congress produced a vast ideological and political indoctrination program for implementation by military commissars, political sections, and party organizations. A congressional resolution contained the following passage: "Political work in the Red Army must be so ordered that at the end of two years of service the Red Army man will be no less knowledgeable than a province party school graduate. Accordingly, the Army's political apparatus must be guaranteed a continuous cadre of political workers."⁸²

Practical measures aimed at improving political indoctrination work in the Armed Forces in accordance with the decisions of the 11th RKP(b) Congress were discussed at the All-Russian Conference on Agitation and Propaganda Work in the Red Army, held on 1-6 September 1922. At the conference were representatives from the military districts, fleets, GPU troops, border troops, and universal military training system. Reports were read by Chief of Agitation and Propaganda for the RKP(b) Central Committee A. S. Bubnov and by Chairman of the Main Political Education Committee N. K. Krupskaya.

This conference formulated the basic goals of political indoctrination work: to raise the political and cultural level of Red Army men, eliminating illiteracy among them; to give them, during their time in the Army, the body of knowledge that is indispensable to a soldier and citizen of the Soviet republic; and "to make them into socially conscious warriors, standing on guard and ready at any moment to step forward to defend the workers' and peasants' authority. . . ."⁸³

With the transition of the Armed Forces to a peacetime footing, systematic political indoctrination work was begun. General and political education of personnel was planned, and overall programs and teaching plans were formulated. Political organs and party cells were given a greater role in managing the indoctrination program. To eliminate illiteracy and raise the general educational level of enlisted men, an extensive network of elementary and secondary schools was instituted among the troops. As of 1 October 1922, the Red Army had 712 such schools. These schools produced 77,591 graduates during January-September 1922.⁸⁴

The effectiveness of mass agitational work improved. In content, simple agitation came closer and closer to systematic propaganda.

The "political hour" was introduced into the Red Army in 1921. Originally, its program was developed in military districts, in divisions, and even in regiments on the model of the small-district-soviet party school. In October 1922, the troops received a unified program which converted the political hour into a system of political lessons with Red Army men. An extremely important mission of political indoctrination was to reinforce the bond between the Army and the people.

A commission to deal with patronage questions was formed under the Revolutionary Military Council of the Republic at the end of July 1922. At the beginning of 1923, Red Navy Week and Aviation Week were instituted, and cultural patronage was conferred on the Red Army.

The work of the service men's clubs improved. Such work was better coordinated with the political hour program. A tendency for the club to draw closer to the company resulted from the creation of the "Red Corner." In the Red Corners newspapers were read aloud and mobile company libraries were set up.

The political indoctrination work conducted in military units broadened the Red Army man's horizon and helped him to master military affairs. Red Army men became more active in public affairs. When the young men, seasoned by military service, returned to industry and agriculture, they became active supporters of the Communist Party's policy and formed its bulwark among the mass of workers and peasants.

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The development of the Armed Forces during 1921-23 had its characteristic features. These were associated mainly with the immense economic and political difficulties suffered by the Soviet land, which had just emerged from a long and exhausting war and was beset by a strained domestic and international situation. Consequently, the transition to a peacetime footing was long and difficult. Nonetheless, important advances were made in the organizational development of the Army and Navy.

The Communist Party, led by V. I. Lenin, formulated a scientifically well-founded military policy and used it to plan and implement concrete measures to strengthen the Army and Navy. Creative effort and a profound analysis of the domestic situation disclosed a new approach to the organizational development of the Armed Forces, an approach based on a combination of regular and militia formations. This approach was pursued further during the years of military reform.

Notes

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 29. *Army Archives*, f. 4, op. 3, d. 2665, 1. 25.
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Chapter 5. The Military Reform and Further Strengthening of the Armed Forces of the USSR

(1924-28)

1. The Need for Military Reform. The Growth of the Red Army's Mixed System of Organizational Development

By the middle of the twenties the domestic situation in the Soviet state had improved considerably. The New Economic Policy, the immense amount of organizational and indoctrination work done by the Communist Party to maintain the plotted course, and the labor enthusiasm and heroism of the masses all helped to overcome the economic chaos.

The first confident steps made by the Land of the Soviets on the road to socialism were clouded by deep grief at the death, on 21 January 1924, of Vladimir Il'ich Lenin, founder and leader of the Communist Party and the Soviet state, organizer and indefatigable builder of the Red Army. M. I. Kalinin afterwards wrote that "Lenin was the greatest commander in the history of the wars waged by the toiling masses to rid themselves of their oppressors. He laid the foundations of the Soviet regular army. . . ."

The sad news of Lenin's death caused heartache in every Soviet breast, whether military or civilian. In those trying days, one and all rallied even more closely around the Communist Party and its Leninist Central Committee. At mass meetings everywhere in units and formations to mourn the late V. I. Lenin, Red Army and Navy men, commanders, and political workers took an oath of fidelity to the great cause of the party's leader, expressing their readiness to defend the socialist Fatherland selflessly and adeptly, sparing neither their strength, nor, if need be, their lives.

The Communist Party and its Central Committee were sure that the Armed Forces would strive with even greater vigor to fulfill V. I. Lenin's most important behest: to increase the defensive capability of the Soviet state and the fighting strength of its Armed Forces. Even though it was preoccupied with economic recovery, the party did not slacken its efforts to build up the Army and Navy. However, progress in military organizational development was hampered not only by the economic and political difficulties of the recovery period but also by the unsatisfactory work of

the War Department, which was cluttered with Trotskyites. The oppositionists, taking advantage of V. I. Lenin's illness and death, strove to alienate the Red Army and Navy from the party's direction, implanting doubt in the minds of the military leaders about the success of socialist construction. The oppositionists managed to retard the strengthening of the Soviet Armed Forces.

The Central Committee could ignore neither the danger of its influence among the troops being weakened nor attempts to undermine the basic principle of military organizational development. The plenary session of the RKP(b) Central Committee held in January 1924 appointed a special commission headed by S. I. Gusev* to investigate the situation in the Armed Forces and to recommend action to strengthen their combat efficiency. The Moscow Military District and its Western, Ukrainian, and North Caucasian counterparts were investigated, as was the Baltic Fleet.

The commission noted that the direction of the Armed Forces by the Revolutionary Military Council of the USSR and the People's Commissariat for Military and Naval Affairs, both of which were headed by Trotsky, was unsatisfactory. Personnel turnover in the Red Army had assumed substantial proportions, disrupting its daily routine and training, and adversely affecting its combat efficiency. Red Army men were being enrolled and released at irregular intervals all year round. Many of the individuals arriving in units for duty were unfit for military service.

Some measure of discrepancy was found between the mobilization plan and actual stocks of arms, munitions, and rations. The organizational structure of the branches was found to be at considerable variance with the country's economic means and with peacetime combat training requirements.

Despite certain successes in military cadre training, the situation here was also unsatisfactory. There were instances of an improper attitude of high command elements toward command cadres of worker or peasant origin. Of the 87,000 graduates from Soviet military educational institutions, only 25,000 were still in the Army at the beginning of 1924.² The commission even noted that "the General Staff Academy's first graduating class, consisting of workers and peasants who had commanded Red Army units or formations during the Civil War, had been largely demobilized."³

The endless disbanding and re-forming process, which had gone on for almost 3 years, disrupted systematic combat training. The Army was overburdened with internal service tasks such as the campaign against brigand-

* Among the commissioners were A. A. Andreyev, A. S. Bubnov, K. Ye. Voroshilov, G. K. Orlovskiy, I. S. Unshlikht, M. V. Frunze, and N. M. Shvernik.

age, the security of industrial installations, and various kinds of administrative work. Army life and the quality of troop training and indoctrination were also adversely affected by the difficult economic situation, by the absence of regulations reflecting the nature and the new missions of the Soviet Armed Forces, by the lack of training aids, and so on.

The commission saw the principal danger for the Red Army to be Trotsky's endeavor to undo the Central Committee's guidance in military organizational development. In this context, commission member K. Ye. Voroshilov noted that "... until the War Department is put on the same footing as all other departments for deference to the Central Committee's guidance, that is, as long as the War Department remains fenced off from the Central Committee, we shall not be rid of those irregularities that threaten to end in a complete catastrophe for the Red Army and for the country."⁴

The Central Committee's February (1924) plenary session, after considering the commission's findings, noted "that the army had serious shortcomings (massive personnel turnover, an inept supply system, and so forth) so serious as to threaten it with collapse."⁵ The plenary session issued a directive implementing a wide range of measures designed to normalize and strengthen the Armed Forces decisively. The commission was instructed to continue its work and to make further recommendations for improving the state of the Army and Navy. Its proposals, which were approved by the Central Committee at the beginning of March 1924, underlay the impending military reform.

The overall direction of the military reform was entrusted to M. V. Frunze.* He was assisted by a number of military specialists drawn from the central apparatus and the field. There were several subcommittees, which were subdivided into sections. The work of the sections was discussed at the subcommittee level, and the conclusions reached there were ratified at sessions of the commission, which was subordinate to the Revolutionary Military Council of the USSR. The result was an overall plan for military reform. It called for further growth and strengthening of the mixed system of organizational development, elimination of personnel turnover in units, precise definition of terms and conditions of service, a reorganized command and control system, better troop management, an expanded research and development program, and updated regulations.

Thus, the military reform plan constituted an extensive program for military organizational development, embracing almost all basic facets of military life. The party's Central Committee guided the reform. Most of the intended measures were implemented during 1924-25. The first results

*On 11 March 1924, M. V. Frunze succeeded E. M. Sklyanskiy as deputy chairman of the Revolutionary Military Council of the USSR.

were summed up at the 3rd All-Union Congress of Soviets (May 1925) in M. V. Frunze's report "The Red Army." The congress noted that the work done was merely the initial phase of the Red Army's peacetime organizational development, and instructed the Central Executive Committee and the Council of People's Commissars of the USSR to take further steps to increase the fighting strength of the Armed Forces.⁶ The work begun was continued throughout 1926-28. The basic tasks of the military reform were defined and expanded in accordance with the circumstances attending the growth of the Soviet state.

One of the most important aspects of the military reform was widespread implementation of the territorial principle for Red Army manning purposes in conjunction with the regular method. The Communist Party and the Soviet government were motivated by the need to increase the country's readiness to mobilize with only a limited number of regular peacetime formations.

The prevailing hostile capitalist encirclement made a regular army extremely advantageous from a military viewpoint. However, in the mid-twenties the regular army would have needed a strength of 1,800,000 men to enable it to train the draftee contingent (given a 2-year term of compulsory military service).⁷

The Soviet state could not maintain such a large army. The country had just completed a restoration of industry and agriculture and was about to embark on building a new socialist economy. This required immense means, and such means could only come from domestic resources. A large regular army would have been an intolerable burden on the state budget and on the working people, and would have impeded the building of socialism. At that time, even an army 600,000 strong was hard to maintain. Therefore, the Communist Party and the Soviet government were obliged to conduct a further reduction of the Armed Forces. On 1 October 1924, their strength was limited to 562,000 men.⁸

The Red Army could pass only 30 percent of the draftee contingent of a single age group through its ranks, whereas the corresponding figures for the regular armies of France, Poland, and Rumania were 68.3 percent, 70 percent, and about 66.6 percent respectively.⁹

Thus, our military organizational development contained a serious contradiction: whereas a smaller army was dictated by economic considerations, the defense needs of the Soviet state dictated the reverse.

This problem could be solved only by further expanding and strengthening the mixed system of Army development through a consolidation of regular and territorial formations. In support of this viewpoint, M. V. Frunze wrote, "The presence of territorial militia formations permits us to

increase the size of the draftee contingent that we put through our army's ranks. Moreover, we are taking into account the fact that this system permits the draftee to be trained without a long absence from the production sector, which is a great benefit to the population, and, finally, we are also aware that this system provides adequate military training. This has led us to adopt the standing army with militia formations as the configuration of our Armed Forces. Under the present circumstances, and for the present level of our peacetime strength, there is neither an alternative nor the prospect of one."¹⁰

The first territorial division training assemblies, conducted in the autumn of 1923, yielded results that were, on the whole, satisfactory. At the beginning of 1924, a second, longer stride was made in this direction: 16 more divisions were put on a territorial footing."¹¹

An all-union conference was convened in March 1924 to enlist the aid of party and social organizations in instituting the mixed system of development for the Red Army. Represented at the conference were the RKP(b) Central Committee, the Moscow and Petrograd party committees, the War Department, the Central Committee of the Russian Young Communist League, the All-Union Central Trade Union Council, and the party central committees for the Ukrainian, Belorussian, and Transcaucasian republics. An adopted resolution called the attention of all party organizations to the need for their participation in creating territorial units and conducting preinduction training of the population.

The work planned for expanding the Army's territorial organizational development was unanimously approved by the 13th RKP(b) Congress (May 1924). The congress particularly emphasized the role of this system in the socialist transformation of agriculture and its potential for strengthening the alliance between the workers and the peasantry: "The expansion of the militia provides new opportunities for party work in the countryside and for broadening Soviet influence there. As the territorial formation contains poor peasants and middle-class peasants exclusively, it can and must serve as a starting point for the unification and education of these two groups, and it also must promote and aid economic and cultural growth in the countryside."¹²

The territorial system of development also received substantial support from the 3rd All-Union Congress of Soviets, which resolved that "the territorial system has been accepted in principle by the peasantry and workers at large, and as that system eases the burden imposed by armed forces on the state budget and on the public, it tends to unify workers and peasants."¹³ The Congress of Soviets called upon local soviets to cooperate with the War Department in conducting territorial assemblies and in the preinduction training of the workers.

The territorial system grew year by year. During the 5-year period 1924-28, the number of territorial rifle divisions (top-priority) more than quadrupled.¹⁴

Certain cavalry, artillery, and other units were also put on a territorial footing. By the end of 1928 there were three territorial cavalry divisions, one such armored train regiment, and several such artillery batteries and machine gun companies. Expressed as percentages of their regular counterparts, the proportion of territorial units in the indicated categories was as follows: rifle troops, 71 percent; cavalry, 12 percent; and artillery (special purpose), 38 percent.¹⁵

The Central Committee attached great importance to preinduction training, which it regarded as the foundation of the entire territorial structure. In September 1924 it published a special letter on the subject, calling the attention of the local soviets and party organs to the need for precise organization and all-round materiel support of preinduction training.¹⁶ From 1925-26 onward, the state of the national economy permitted preinduction training, rations, and quarters at public expense. The barrack method of training was introduced for this purpose.

By and large, the Red Army's mixed system of development met national defense needs in the world situation that prevailed during the twenties. Because most rifle divisions were on a territorial footing, it became possible to keep technical troops, army cavalry, naval forces, and aviation on a regular footing, and to maintain them at a sufficiently high level of mobilization readiness.

The mixed system of development resulted in a considerable financial saving. The pay of a regular Red Army private was 267 rubles a year, while the annual pay of his territorial counterpart was only 58 rubles. The appropriation for training a regular Red Army man throughout his entire period of compulsory service (2 years) was 535 rubles. The appropriation for training a territorial soldier throughout his 5-year period of service was 291 rubles.¹⁷ Entailing a considerably smaller outlay of funds, the territorial system allowed a much larger draftee contingent to be processed, which justified this method from the mobilization viewpoint.

The merits of the mixed system were, however, attended by substantial deficiencies. In the event of mobilization, territorial formations could not meet the deployed rifle formations' requirement for cadres because they themselves had a dearth of permanent personnel. Consequently, the greater part of the divisions would be poorly organized and would be found wanting in combat efficiency during the initial mobilization period. Brief, periodic training assemblies did not assure units a high level of combat training, discipline, or cohesiveness. The territorial system prevented stationing formations in accordance with operational plans for the Army's

wartime deployment. However, as was noted above, there was no better way of ensuring mobilization readiness at this time.

A new aspect of military organizational development was the creation of ethnic formations, which was done in accordance with a resolution adopted by the 12th RKP(b) Congress. This was merely one facet of the Communist Party's and the Soviet government's policy to strengthen friendship and cooperation between the peoples of the USSR, and it reflected the principle of internationalism in the Army's organizational development.

The Red Army's first ethnic formations appeared during the years of the Civil War. The transition of the Armed Forces to a peacetime footing and the advent of the USSR opened up new prospects for the creation of ethnic formations, especially in the Ukraine, in Belorussia, and in the Transcaucasian republics. By the end of 1924 there were four Transcaucasian ethnic rifle divisions (two Georgian, one Armenian, and one Azerbayd-zhanian). Additionally, there were four Ukrainian rifle divisions and one Belorussian rifle division.

Special attention was paid during 1925-26 to creating ethnic units and formations in the republics of Central Asia and the Volga River region. Examples of this trend were the following: in the Uzbek SSR,* one rifle division and one cavalry division; in the Turkmen SSR and the Kazakh ASSR,† one cavalry division each; in the Tadzhik ASSR and the Kirgiz Autonomous Region, one cavalry regiment each. There were similar examples in the RSFSR: in the Yakut ASSR, one rifle regiment; in the Buryat-Mongol ASSR, one cavalry regiment; in the Tatar ASSR and the Bashkir ASSR, one rifle division with a cavalry regiment each.¹⁰ Ethnic units and formations had the same tables of organization and equipment and underwent the same combat training and political indoctrination as the Red Army's nonethnic units and formations.

Despite a number of difficulties, the plan to deploy ethnic formations was accomplished fairly satisfactorily. Reporting to the 4th All-Union Congress of Soviets (April 1927), the People's Commissar for Military and Naval Affairs reported that "in all these republics we now have ethnic troop formations that are qualitatively almost on a par with the rest of the Workers' and Peasants' Red Army."¹¹

Ethnic military formations promoted friendship and brotherhood between the nationalities of the USSR. The ethnic formations, in which all the peoples of the USSR were represented, constituted an integral part of

*[SSR—*Sovetskaya Sotsialisticheskaya Respublika* 'Soviet Socialist Republic'—U.S. Ed.]

†[ASSR—*Avtonomnaya Sovetskaya Sotsialisticheskaya Respublika* 'Autonomous Soviet Socialist Republic'—U.S. Ed.]

the Soviet Armed Forces and accounted for a tenth of the Army's strength.²⁰

The first law after the Civil War on terms and conditions of service in the Red Army was passed in 1922. This law provided for a call-up twice annually: the spring call-up for the bulk of the draftee contingent; and the autumn call-up for those who were granted a deferment. Those called up in the spring served for a year and a half (in the infantry), whereas those called up in the fall served for only 6 months. This was dictated by the desire to put as much of the draftee contingent as possible through the Army.

On 21 March 1924, the Central Executive Committee and the Council of People's Commissars of the USSR ratified a resolution that specified the length of time to be served in the RKKA, in the RKKF, and in the military component of the OGPU.²¹ The resolution also established new terms of military service. All members in the Ground Forces were to serve for 2 years; Red Air Force specialists for 3 years; and Red Navy specialists for 4 years. The call-up for active service was to take place each fall. The call-up age was raised to 21 years. The right to a reduction of military service on compassionate grounds (family situation) was abolished.

Communist Party and Soviet government resolutions and army orders on manning the Armed Forces and rendering military service were generalized in a bill drafted by the Revolutionary Military Council of the USSR.

When ratified by the Central Executive Committee and the Council of People's Commissars of the USSR on 18 September 1925, the bill became the Compulsory Military Service Law. Defending the USSR in arms was declared to be the honorable prerogative only of the working people. Those not engaged in labor were to be conscripted for other duties. All working men between the ages of 19 and 40 were liable to be called up for military service. Such service was made up of 2 years of preinduction training, 5 years of active service, and time in the reserve. Three types of active service were defined: regular service in the Armed Forces, temporary service in a territorial unit, and military training for civilians. Active service in the regular Armed Forces consisted of 2 to 4 years of continuous service followed by 1 to 3 years of furlough. During the furlough, the serviceman was required to attend a training assembly of not more than 1 month each year. Active service in a territorial unit consisted of 3 months of training the first year and training assemblies totaling 5 to 6 months in subsequent years but not exceeding 2 months in any given year. The military training for civilians amounted to periodic training assemblies of as much as 6 months in total but not exceeding 2 months in any given year.

The new conscription law broadened the concept of military service, extending it beyond the notion of time spent in the ranks or afloat to include time spent in preinduction training.

The Compulsory Military Service Law was subsequently modified by amendments. One of the most important of these was prompted by a joint Central Executive Committee-Council of People's Commissars resolution, dated 20 August 1926, on military training and service for individuals who attended, and eventually graduated from, a higher educational institution or a technical college.²² Students underwent higher preinduction training, a program introduced expressly for them, consisting of a theoretical course and 2 months of practical training. Upon graduation from their higher educational institution or technical college, such individuals underwent 1 year of active military service. After completing such service, they took examinations for the appropriate supervisory rank in the reserve.

Enactment of the first Compulsory Military Service Law with nationwide force was of immense importance politically and defensewise. The right to defend the Fatherland arms in hand was now shared equally by all Soviet workers, whatever their ethnic origin.

The law institutionalized compulsory military service for the workers in the various forms dictated by the mixed system. For the first time, a stable and well-regulated procedure was established for keeping the Army and Navy up to authorized strength. Moreover, the law explained the terms and conditions of military and naval service unequivocally. The principal causes of personnel turnover were eliminated, creating a climate in which combat training and political indoctrination could be conducted in a systematic manner, and in which the Armed Forces could be strengthened organizationally.

2. Organizational Improvement and More Materiel for the Armed Forces

One of the principal missions of the military reform was to strengthen the central military apparatus. Despite the fact that the military administration was substantially restructured when the Red Army was put on a peacetime footing, it still had serious shortcomings that were adversely affecting the further development of the Armed Forces. The Central Committee therefore directed that management of the Red Army be strengthened first and foremost, that the demarcation of the functions of the central directorates be made more precise, and that measures be taken to increase their accountability.

An order issued by the Revolutionary Military Council of the USSR on 28 March 1924 indicated in general terms how the military administrative

apparatus was to be reorganized.²³ It was to be simplified as much as possible, and methods rendered inappropriate by the advent of peacetime conditions were to be eliminated. The central military establishments were to be reviewed with the aim of decentralizing their functions, cutting back and replacing personnel, and strengthening them with party cadres. Finally, the structure of the local military administrative apparatus was to be altered as dictated by the expansion of territorial organizational development.

The order abolished the post of commander in chief and disbanded its machinery. The unified RKKA Staff was replaced by three independent directing organs: the RKKA Staff, the RKKA Main Administration, and the RKKA Inspectorate.

The RKKA Staff became the War Department's main strategic and operational organ, charged with formulating broad national defense policy. According to M. V. Frunze, the RKKA Staff was to become "not only the brain of the Red Army but also the military brain of our entire Soviet state, and it must provide the data and recommendations upon which the Defense Council's decisions are based."²⁴ On 1 April 1924 M. V. Frunze was named chief of the RKKA Staff on a dual appointment basis. M. N. Tukhachevskiy and B. M. Shaposhnikov were named his assistants.

The RKKA Main Administration, headed by N. N. Petin, was entrusted with managing the Army's daily routine and meeting its current needs.

The RKKA Inspectorate, headed by S. S. Kamenev, had charge of training officers and enlisted men, and it also conducted inspections of the Armed Forces. Later, the RKKA Inspectorate's existence as an independent organ proved inadvisable, and it was made a component of the RKKA Main Administration.

Providing the Armed Forces with logistic support was concentrated in special directorates headed by Red Army Chief of Supply I. S. Unshlikht.

Naval training and organizational development were managed by the Directorate of the Navy, while the Directorate of the Air Force managed training and organization functions for aviation units.

There was a change in the administration of technical troops. The directorates for artillery, engineering, communications, and armored forces dealt only with supply matters and were subordinated to the Red Army's chief of supply. The training of these troops was managed by the RKKA Inspectorate.

The central military administrative apparatus was modified from time to time for economy and to accommodate further equipping of the Armed Forces, but on the whole it remained substantially unchanged until the end of 1928.

The Central Committee took steps to reinforce the party-political apparatus in the Armed Forces and to strengthen its party cadres. The overall direction of party-political life in the Army and Navy was managed by the RKKA Political Directorate, which worked under the direct supervision of the Central Committee with the status of its military section. The eminent military and party figure A. S. Bubnov was appointed chief of the RKKA Political Directorate in January 1924.

A statute on the RKKA Political Directorate was enacted in September of that year. This directorate, its counterparts in fleets and military districts, and the political sections of divisions were reinforced with party cadres who had practical experience. A. S. Bubnov was elected secretary of the RKP(b) Central Committee in April 1925. This established a closer link between the supreme military political organ of the Soviet Armed Forces and the Central Committee of the party.

Ties between the Armed Forces' political organs and local party organizations were strengthened. Guided by decisions made by the 13th RKP(b) Congress, which attached great importance to organizing the country's defenses, the Central Committee passed a resolution on this matter and ratified the corresponding statute.

The 14th VKP(b)* Congress (December 1925) amplified the party rules with an important special section entitled "Red Army Party Organizations." The position of the RKKA Political Directorate among the leading political organs was defined there for the first time, as was the nature of the relationships between the Army's political organs and the central and local party organs. Mandatory minimum party seniorities were laid down for chiefs of political sections and for secretaries of party commissions and party organizations.²³

The central military administrative apparatus operated better after its reorganization and became more explicit, more purposeful, and more efficient in its direction of the Armed Forces. Directorates and sections were reduced in strength: as of 1 October 1924, the number of individuals employed in the central apparatus was 2,855 (almost 23 percent less than a year earlier). The percentage of party members increased (from 12 percent in 1923 to 25 percent at the end of 1924).²⁴

*[VKP(b)—*Vsesoyuznaya Kommunisticheskaya partiya (bol'shevikov)* 'All-Union Communist Party (of Bolsheviks)']—U.S. Ed.]

The governmental apparatus was renovated considerably by an influx of military cadres who were veterans of the Civil War and graduates of Soviet military educational institutions.

The number of Red Army Academy graduates among War Department personnel increased by 10 times. A considerable rejuvenation of staff occurred: the number of employees over 50 fell from 21 percent to 5 percent, while the under 30- and 30- to 40-year-old age groups reached 31 percent and 38 percent respectively.²⁷

The central organs of the military administration were reinforced with management cadres capable of resolutely and consistently implementing the decisions of the Communist Party and the Soviet government.

The January (1925) plenary session of the RKP(b) Central Committee resolved that Trotsky's presence in the Army could no longer be countenanced, as he was sabotaging the military reform and was putting all his effort into factional antiparty activity. On 26 January, by a Central Committee plenary resolution, the Presidium of the Central Executive Committee of the USSR divested Trotsky of his dual appointment as people's commissar for military and naval affairs and chairman of the Revolutionary Military Council of the USSR.

M. V. Frunze was appointed to the positions vacated by Trotsky. K. Ye. Voroshilov was named his deputy. Among the other members of the Revolutionary Military Council were P. I. Baranov, A. S. Bubnov, S. M. Budennyi, A. I. Yegorov, S. S. Kamenev, G. K. Ordzhonikidze, M. N. Tukhachevskiy, and I. S. Unshlikht.

M. V. Frunze's tenure as head of the War Department was short-lived, but it left a deep mark on the history of the Soviet Armed Forces. Characterizing M. V. Frunze's activity, A. S. Bubnov wrote, "... ever an eminent military commander and organizer, he never stopped being a Bolshevik-Leninist for an instant. He had a coherent system of opinions on the basic questions of military affairs. That system was imbued with Leninism."²⁸

M. V. Frunze persistently implemented the decisions of the Communist Party and the Soviet government. He introduced a spirit of party-mindedness and a high sense of civic duty in his work in improving combat training, preparing military cadres, and furthering military and political indoctrination.

M. V. Frunze was succeeded as people's commissar for military and naval affairs and as chairman of the Revolutionary Military Council of the USSR by K. Ye. Voroshilov, a worthy successor who was appointed by the Central Executive Committee of the USSR on 6 November 1925.

On 9 January 1925, the Central Executive Committee and the Council of People's Commissars of the USSR passed the joint resolution "On a Reorganization of the Local Organs of the People's Commissariat for Military and Naval Affairs."²⁹ The provincial military commissariats were disbanded and were replaced by corps and divisional territorial directorates for manning military districts. The chief of a territorial district was the commander of the formation and managed his training and mobilization work through the apparatus of the territorial directorate. The smaller rural military commissariats were retained as the primary mobilization and registration organs.

Improvement of the economic and financial situation permitted the Soviet government to increase appropriations for defense. Accordingly, an increase in the strength of the Armed Forces from 562,000 in 1924 to 617,000 in 1928 was authorized by the government.³⁰

During the latter half of the twenties, much work was done to improve and standardize the organization and establishment of all branches of the Ground Forces. Particular attention was paid to the rifle troops, which suffered from substantial organizational shortcomings: diversity in units and formations, instability in their tables of organization, and heterogeneity in company structure, armament, and training methods. Additionally, their level of firepower was unsatisfactory.

As early as the autumn of 1922, each rifle regiment had one demonstration company that was to be armed with automatic weapons, especially Fedorov submachine guns, light machine guns, and heavy machine guns. The other eight companies remained conventional. The demonstration companies were trained in so-called group tactics; the conventional companies in skirmish line tactics. Consequently, M. V. Frunze remarked that "we did not have, and could not have had, either a uniform organization or standard tactics."³¹ It was planned to convert all companies in a regiment to the demonstration type, but this proved to be unrealistic. At this time, even the demonstration units could not be supplied with the authorized number of automatic weapons.

The organization for the rifle company (the infantry's basic tactical unit) was widely discussed in the military press. Summing up the results, the RKKA Staff concluded that the infantry should have a standard organizational structure compatible with the armament supply situation.

Reorganization of the rifle troops began with a Revolutionary Military Council of the USSR order, dated 7 October 1924, that introduced a new organization for regular rifle formations and units. It gave the rifle division 3 rifle regiments, 1 artillery regiment, 1 cavalry troop, and special units to provide munitions and other materiel. It set the rifle division's wartime strength at 12 800 men and proposed an armament of 54 guns,

270 machine guns (189 of them heavy), and 243 grenade launchers. Although the 1924 rifle division had 16 percent less numerical strength than its 1923 counterpart, its firepower was greater. Whereas the 1923 rifle division had 2.6 guns and 8.2 heavy machine guns per rifle battalion, its 1924 counterpart had 6 guns and 30 machine guns (light and heavy) per battalion.³²

The strength of a regular peacetime division was set at 6,516.³³ This figure applied only to the rifle divisions of border districts. Their counterparts in internal districts had a reduced strength of 4,819. This was caused by the need to keep the necessary number of formations while staying within the norm set by the government for the total strength of the Ground Forces. The regular rifle divisions, whether of augmented or reduced strength, were much alike organizationally.

Two types of territorial divisions were defined: those with normal and those with reduced strength. The strength of the permanent personnel in a division of the normal type was reduced from 2,382 to 2,150. In divisions of the reduced type it was increased from 1,457 to 1,802. The strength of cadres in a second-line territorial division was increased from 600 to 1,200. These changes raised the mobilization readiness of territorial formations, especially of second-line divisions. From 1924 to the beginning of 1928 the percentage of first-line territorial divisions rose from 32 percent to 45 percent, while that of second-line divisions declined from 33 percent to 23 percent.³⁴

Cavalry continued to occupy an important place in the Ground Forces. Soviet military theory maintained that the cavalry was an independent branch capable of accomplishing major operational missions: safeguarding important sectors during the mobilization and deployment period; launching raids into the enemy's rear; developing a breakthrough; and pursuing the enemy at operational depth.³⁵ Additionally, cavalry was expected to conduct combat actions either mounted or dismounted. To meet these expectations, cavalry units and formations needed better organization and equipment and greater firepower.

In the spring of 1925, the Revolutionary Military Council of the USSR deemed it advantageous to increase the cavalry's firepower. In the autumn of 1926, a new unified table of organization and equipment was introduced for cavalry units and formations. It called for a cavalry division consisting of 2 brigades with 2 cavalry regiments in each, 1 horse-artillery battalion, 1 machine gun troop, and other units. Each regiment consisted of 4 saber troops and 1 machine gun troop with 16 heavy machine guns mounted on horse-drawn carts.

The highest army cavalry formation, the cavalry corps, had 2-3 divisions, 1 artillery battalion, and 1 signal troop.

By the end of 1928, army cavalry consisted of 4 corps headquarters, 12 cavalry divisions (including 3 territorial), and 7 independent 3-regiment cavalry brigades.³⁶

Because of the reorganization, cavalry units and formations approached their wartime tables of organization and equipment and gained significantly in firepower.

Much attention was paid to strengthening the artillery, one of the most important branches of the Ground Forces. As the defense industry was unequal to providing the Army with the necessary number of new guns, the stress during the twenties was on economically warranted modernization of artillery armament, with particular emphasis on increasing effective range.

Work was also done on the design of artillery systems. For example, a new 76mm regimental cannon was invented in 1927. Restoration of old guns and the production of new ones permitted the Ground Forces' artillery inventory to be increased considerably. Between 1924 and 1928, the inventory of field artillery rose from 3,064 to 7,200 guns.*

For more effective use of organic artillery, the 6-gun battery was replaced by the 3-gun battery. The tables of organization and equipment for organic artillery were amended. A rifle regiment got an artillery battalion consisting of two 76mm cannon batteries, while a rifle division got a light artillery regiment made up of three battalions of the mixed type (eighteen 76mm cannons and twelve 122mm howitzers).

Corps artillery, which included independent battalions, was switched to a regimental organization in the summer of 1926. The rifle corps had a heavy artillery regiment of two mixed battalions with three batteries in each (nine 107mm cannons and nine 152mm howitzers).

As a result of the reorganization, the inventory of organic artillery increased from 1,012 guns (as of 1 October 1923) to 3,510 guns (as of 1 October 1926). The number of guns in rifle divisions almost quadrupled (from 796 to 3,048) during the same period.³⁷

Special purpose artillery, renamed High Command Reserve artillery in 1926, had 446 heavy guns, only 123 of which were in good working order. The rest were stored in ordnance depots and were in need of major repairs. A significant portion of the artillery inventory consisted of obsolete systems that could not meet prevailing requirements.

*Not counting air defense artillery, which numbered 590 guns at the end of 1928.³⁸

In the summer of 1926 formation of an artillery division with 2 heavy regiments and 2 independent heavy battalions was begun, the aim being to centralize combat training and use High Command Reserve artillery more advantageously. The creation of 4 such formations was intended. However, this was prevented by the limited availability of heavy artillery, and what emerged was one 2-regiment division (72 guns) and 2 independent regiments with 36 guns in each. Several artillery units, whose materiel was either excessively worn or nonexistent, were disbanded, and their personnel were transferred to organic artillery.

At the end of 1928, the Red Army's armored forces had 92 tanks (mainly foreign makes), about 100 armored cars, and 32 armored trains.³⁹ The armored vehicles, which had low technical specifications, were excessively worn.

At the Central Committee's bidding, a design and development program was begun for the production of Soviet tanks and armored cars. In 1927, prototypes of the T-18 (MS-1) light tank and the BA-27 armored car were built. Series production began in 1929.

Changes were made to the armored forces' organization and equipment structure. At the beginning of 1925, the tank squadron was reorganized as an independent tank regiment of four tank battalions. This was the Red Army's first tank regiment. Armored train units were also converted to a regimental organization. Such a regiment consisted of two battalions with two armored trains in each. Independent armored car detachments were grouped into battalions with 12 vehicles in each.

A number of engineer troops were integrated into line units and formations: a corps got an engineer battalion; a division got an engineer company; and a regiment got an engineer platoon. The structure of separate engineer units was clarified. A considerable number of special engineer formations were disbanded, and the personnel were posted to organic engineer units. As a result of this, the strength of engineer units of central or military district subordination was almost halved.⁴⁰ At the end of 1928, the engineer units so subordinated included three engineer battalions, three pontoon battalions, one electrical engineering battalion, two independent camouflage companies, and a few special units.⁴¹

Signal troops belonged either to units integrated into rifle or cavalry formations, or to units subordinated directly to the chief of the RKKA Communications Directorate or to a military district staff's chief of communications. Toward the end of 1925, the latter had at their disposal 10 signal regiments, 1 radio regiment, 10 independent radio battalions, and several other special units.⁴² There was a significant improvement in the provision of radio equipment to signal troops. Whereas in 1926 they had 180 radio sets, by the end of 1928 they had approximately 500.⁴³

Railroad troops were also reorganized. The brigades that existed until 1924 were transformed into 11 railroad regiments, each of which had 4 battalions (2 for construction and 2 for maintenance) and a technical base.⁴⁴

Chemical troops were still in the conceptual stage. At the end of 1928 they amounted to one regiment and one independent battalion. However, tables of organization and equipment for rifle and cavalry units and formations began to include a unit (company or platoon) for antichemical protection duties.

The organizational improvements in the Ground Forces during 1924-28 improved their mobilization readiness and their combat efficiency. The aggregate preponderance of the infantry and cavalry (without artillery) diminished from 74 percent to 62 percent during those years, while the overall proportion of artillery and technical troops (armored forces, and troops in the engineer, communications, and railroad categories) increased from 26 percent to 38 percent, mainly due to artillery but partly due to engineer and signal troops.⁴⁵

The changing of the Ground Forces' organizational structure and the increase in their technical might constituted an important achievement of the military reform. However, due to the prevailing circumstances, the general state of the Ground Forces' equipment was still poor. In armament, the Red Army rifle division was inferior to its foreign counterparts in firepower. Whereas in 1928 the RKKA rifle division had 48 guns, its French and German equivalents had 60 and 98 guns respectively. In armor, whereas the Soviet Ground Forces had 92 obsolete tanks, the French Army had 6,000 modern tanks, and the U.S. Army had nearly 1,500.⁴⁶

At the end of 1928, Soviet rear services had only about 1,200 trucks. Supply vehicles were predominantly horse-drawn, making rear units unwieldy and restricting the maneuverability of the ground troops (especially that of the rifle divisions).⁴⁷

On the whole, however, the Ground Forces became better organized and better equipped during the latter half of the twenties. This had a positive effect on their firepower, combat efficiency, and mobilization readiness.

The Communist Party and the Soviet government attached great importance to the Soviet Navy in the overall plan for the organizational development of the Armed Forces. This was due to the importance of the missions the fleet was called upon to perform within the country's system of defense. In February 1925, M. V. Frunze remarked that "... we cannot conceivably safeguard our maritime borders without a strong navy."⁴⁸

The first successes achieved by the Soviet Union in the quest for a stronger economy created the conditions necessary for a systematic restoration of the Navy's logistical base. Between 1923 and 1926, naval tonnage rose from 82,000 to 139,000 tons.⁹ In December 1926, the Council for Labor and Defense approved a naval shipbuilding program (1926-32) that called for the construction of 12 submarines, 18 escort vessels, and 36 motor torpedo boats, and for the refit and modernization of a number of naval vessels.

Owing to heroic efforts by the Soviet people, this plan was accomplished. In 1928, the Baltic Fleet and the Black Sea Fleet had 3 battleships, 4 cruisers, 14 destroyers, and 14 submarines.¹⁰

Steps were taken to strengthen the Navy organizationally. Its central administration was reorganized. The post of naval assistant to the commander in chief of the Armed Forces was abolished, and its functions were assumed by the chief of the Directorate of the Navy.

The changes made to the Navy's organizational structure were aimed at creating larger formations that could accomplish operational missions in wartime. Accordingly, in the Baltic Fleet, divisions of destroyers were merged to form brigades, while detachments and divisions of minelayers and minesweepers were merged to become a minesweeping and minelaying brigade.

During 1924-28, ships of the Baltic Fleet and the Black Sea Fleet conducted exercises in cooperation with ground forces and aviation, went on flag-showing cruises, and carried out deep-sea navigation. Side by side with the land army, the Navy began to constitute an organized force.

Owing to the constant concern of the Communist Party and the Soviet government, a measure of success was achieved in aviation. The 3rd All-Union Congress of Soviets, taking into consideration aviation's increasing role in military affairs, and aware of its unswerving growth the world over, called for prompt implementation of the Revolutionary Military Council's military aviation plan and pressed for measures to raise the Soviet air industry's output of airframes and aircraft engines to a level that would assure rapid growth of civil and military aviation.¹¹

The result of this was an extensive air materiel production program. The creative work done in the design bureaus headed by A. N. Tupolev, N. N. Polikarpov, and D. P. Grigorovich culminated in the emergence of new types of aircraft. The period 1925-28 saw Soviet military aviation supplied with the I-2, I-2bis, I-3, and I-4 fighters, the R-2, and R-5 reconnaissance airplanes, and the bombers TB-1 and TB-2. Series production of the first Soviet all-metal aircraft was begun in 1927.

Soviet aircraft production progressed not only qualitatively but quantitatively as well. Whereas at the beginning of 1924 the Air Force had 341 combat aircraft (not counting trainers), by the end of 1928 it had 1,400.¹²

The entire Soviet nation participated actively in building the Air Force. The development of the Air Force was a subject of discussion at the 13th RKP(b) Congress. During 1926-28, with funds collected from the public by the Society of Friends of the Air Force, more than 200 aircraft were built and handed over to the military.

Substantial changes were made to the Air Force's organizational structure. According to the missions to be accomplished, a distinction was made between army aviation and corps aviation. Army aviation consisted of fighters, bombers, and reconnaissance airplanes, which were combined into squadrons. Reconnaissance, bomber, and fighter squadrons contained 19, 8, and 31 aircraft respectively. Corps aviation consisted of several detachments with 6 to 8 aircraft in each.¹³ Naval aviation, which constituted 8 percent of the Air Force, consisted of detachments with 12 to 16 aircraft in each.¹⁴

As improvements were being made to the Air Force's organizational structure, the numerical strength of its servicing organs was reduced considerably. The proportion of officers in line units rose from 7 percent in 1923 to 31.6 percent at the end of 1925.¹⁵ The number of air formations increased by almost 50 percent during 1926-28: whereas in 1926 there were 24 squadrons and 40 detachments, by the end of 1928 there were 39 squadrons and 52 detachments.¹⁶

Line units were almost up to authorized strength with pilots, observers, and auxiliary-service specialists.

As a result of intense work, an air force based primarily on domestic industry was created in a comparatively short time. However, reconnaissance airplanes predominated in its aircraft inventory, accounting for 81.6 percent of all combat aircraft in 1928. Fighters and bombers accounted for 10.2 percent and 8.2 percent respectively.¹⁷ This bias was due to the fact that fighters and bombers were not yet in series production in the Soviet Union.

Rear services underwent changes during the military reform. The intermediate (divisional and corps) levels were eliminated from the supply chain, which assumed the following sequence: Moscow—military district—unit—soldier. The supply organs were reduced considerably both in Moscow and in the military districts, but their relations with industry were clarified, and their liaison with the troops was improved.

The RKKA Central Supply Directorate was transformed into the RKKA Supply Directorate, smaller but more flexible. The logistics directorates of military districts were transformed into supply directorates. The supply organs at the division and corps levels were reduced, as they were required only to perform a monitoring function. In July 1924, the post of supply manager was replaced with that of the regimental commander's assistant for supply duties.

The Main Military Construction Directorate was founded in 1924. It managed billeting, barracks construction, operation of available quarters, and provision of communal services for the Red Army. Depots for aircraft maintenance and supply were introduced in 1926 as adjuncts to aviation units. In the same year, the Central Directorate for Military Transportation Lines became a directorate of the RKKA Staff, and the directorates for military transportation lines of military districts became sections subordinated to their respective military district staffs. The post of military assistant to a chief of railroads was abolished. Representatives of the People's Commissariat for Military and Naval Affairs were appointed to the railroads.

These changes made the work of rear services better planned and better organized. Furthermore, they were instrumental in ensuring the troops better logistic support.

In 1924, the border organs and the OGPU troops were merged. In November 1926, the Main Administration of the Border Guard and OGPU Troops replaced the Border Guard Section and the Main Inspectorate for OGPU Troops. A new organizational structure was established for the Border Troops: outpost—commandant's headquarters—detachment—district.

In certain sectors, mobile groups were formed within border detachments. These groups served as an armed reserve to deal with gangs and with mass infringements of the border. Junior command personnel also underwent training in such groups.

On 15 June 1927, the Central Executive Committee and the Council of People's Commissars ratified a new statute on guarding the state border of the USSR. This document consolidated all amendments made to the old statute during 1923-27. The updated Interim Regulations for Border Guard Service went into effect concurrently. Set forth therein were new tactical tenets on the forms and methods of border service.

Changes were made to the escort service administration. The Central Directorate for the Escort Service of the USSR was formed in October 1925. Organizationally, this service was structured on general Red Army principles.

Thus, important organizational steps were taken during 1924-28 to improve the structure of the Soviet Armed Forces and to make them better equipped. In close association with these measures, action was taken to train military cadres and to make a transition to systematic troop training and indoctrination.

3. Unity of Command Introduced. The Transition to Systematic Troop Training and Indoctrination

The changes taking place in the Soviet Armed Forces called for ever greater political and administrative skills from military cadres, and made pertinent the introduction of unity of command. Political, administrative, and command personnel were retested during 1924-25.

Experienced party workers were posted to units and formations, and also to the administrative apparatus, which had been purged of Trotskyites and their supporters. As a result, the number of party members and party candidates in the Army and Navy rose from 46,000, as of 1 October 1924, to 66,600 by the end of 1925. The proportion of command cadres of working-class origin increased. More than 40 percent of the commanders were party members." All this led to the strengthening of command and supervisory personnel and established the necessary conditions for a transition to unity of command, a key factor in the military reform. In July 1924, the Central Committee's Organizational Bureau decided to make a gradual transition to unity of command in the Armed Forces, leaving the details to the Revolutionary Military Council of the USSR.

On 30 July, the Revolutionary Military Council issued an order assigning all command personnel the single rank of RKKA commander. This further consolidated the military cadres as a unified family of builders of the Armed Forces, and it strengthened their authority among subordinates. In the autumn of the same year, service insignia were introduced for command personnel as follows: junior, a triangle; intermediate, a square; senior, a rectangle; and higher, a rhombus. Sleeve insignia were authorized for naval supervisory personnel.

The need for unity of command as a paramount principle for the organizational development of the Armed Forces was substantiated in depth by V. I. Lenin. Generalizing the experience of the development of the Armed Forces during the Civil War, he noted, "This experience needs to be pondered. It progressed, developing naturally, from random, vague collegiality, through collegiality raised to a system of organization permeating all Army installations. Now, as a general tendency, it has arrived at unity of command as the only correct working arrangement."

For a number of objective reasons, a transition to unity of command immediately after the Civil War proved impossible. The main reason was

that the Armed Forces did not have enough qualified, ideologically seasoned command cadres dedicated to the Communist Party and the Soviet government. The party made a great effort to train and indoctrinate new command personnel, monitoring their performance through the institution of the military commissars.

By the end of 1924, the Communist Party's influence and guiding role among the troops had grown, and the party affiliation and class composition of the command cadres had changed substantially. The military qualifications of political workers, especially of commissars, had improved. In 1924-25 approximately one-fourth of the graduates and students in military educational institutions were former political workers or commissars. Upon completion of their studies, they were usually given command appointments. At the same time, the command cadres gained rapidly in political stature and participated actively in party-political work. All this created the necessary conditions for a widespread transition to unity of command. Complying with the Central Committee's instruction, on 2 March 1925 the Revolutionary Military Council of the USSR issued an order introducing unity of command into the Army.

At the outset, full and partial unity of command were implemented. In full unity of command, the commander, being a party member, managed the entire life and activity of his unit, performing the functions of commander and commissar. He had a political officer to assist him. In partial unity of command, the commander's authority was confined to combat training, administration, and supply. There was still a military commissar, who directed party-political work and shared with the commander responsibility for the unit's combat readiness.

Attaching much significance to the transition to the new forms of organizational development and troop management, in March 1925 the Central Committee sent a letter of instruction to party committees "On Unity of Command in the Red Army," which called for their utmost cooperation with the Army's political organs in introducing unity of command into the Army and strengthening the party's influence in its ranks."

A great step toward strengthening unity of command was made in November 1928 when, at the Central Committee's bidding, the Revolutionary Military Council of the USSR enacted a new statute defining the powers and duties of military commissars, commanders invested with unity of command, and political officers. The military commissar retained only the direction of party-political work and the responsibility for the moral-political state of the unit or formation.

The proportion of commanders invested with unity of command by 1928 is reflected in the following percentages: corps commanders, 84 percent; division commanders, 74 percent; regimental commanders, 48 per-

cent; and unit commanders (battalion, company, troop, and battery commanders), 42 percent.⁶¹ Of the Red Army's command personnel, 72 percent were of worker or peasant origin, and 52.9 percent were party or Young Communist League members. More than 90 percent had a special military education.⁶²

Besides reinforcing discipline, unity of command strengthened creative initiative by the commanders. It also made them more responsible for combat training and political indoctrination.

Military councils were retained at the military district, fleet, and army levels, that is, at the most responsible levels of military control. As collegial organs for troop management, these councils did not limit the authority due commanders invested with unity of command.

Unity of command required greater emphasis on the training, indoctrination, and placement of military cadres. A network of military schools for officers at the intermediate level was set up at the time of the military reform. In 1925-26, there were 64 military educational institutions: 49 for the Army, 5 for the Navy, and 10 for the Air Force. The short courses for supervisory personnel were discontinued.

The social composition of military cadres improved, and the party stratum increased in size, especially among the commanders. The VKP(b) Central Committee adopted the resolution, on 15 July 1927, "On the Recruiting Campaign for Military Schools," which called for greater attention to the selection of students from among workers, Young Communist League members, and party members, and insisted that such selection be done on a strictly individual basis. Implementation of this resolution resulted in a yearly increase in the percentage of workers, party members, and party candidates among the command. As early as 1926, the percentage of party members among company commanders, regimental commanders, division commanders, and corps commanders was 52 percent, 51.2 percent, 54.7 percent, and 85 percent respectively.⁶³

The military schools ensured a stream of fully trained, intermediate-level commanders into the Army from worker and peasant youth. During 1924-27, the military educational institutions graduated about 24,000 intermediate-level commanders.⁶⁴

The military academies' courses and programs were reviewed in connection with the growing demand for military cadres with higher qualifications. As a result, greater emphasis was placed on socioeconomic, operational-tactical, and military-historical disciplines in the military academies. Military studies were imbued with Marxist-Leninist theory and methodology.

During 1925-28, six military academies were devoted to training senior and higher supervisory personnel. The M. V. Frunze RKKA Military Academy gave a higher command, staff, and scientific-pedagogical military education, besides preparing specialists for military supply services. The F. E. Dzerzhinskiy RKKA Military Technical Academy, founded in 1925 with the merger of the Military Engineering and Artillery academies, produced specialists in military engineering and designers of ordnance, armored vehicles, and so forth. The N. Ye. Zhukovskiy RKKA Air Force Academy produced command, engineering, and technical personnel for the Air Force and the aircraft industry. The Naval Academy produced command cadres for the fleet as well as specialists in hydrography, naval architecture, electrical engineering, and other areas. The Military Medical Academy prepared supervisory personnel to fill the higher posts in the RKKA Medical Service, and also turned out medical specialists. The N. G. Tolmachev Military Political Academy provided the Armed Forces with highly qualified political workers.

Specialists were trained for the Red Army by civilian and military educational institutions. Military departments were created in the G. V. Plekhanov National Economy Institute, in the Moscow Land Survey Institute, in the Leningrad Institute of Communications, in the Leningrad Electrical Engineering Institute, and in other higher educational institutions.

The diverse courses conducted at military academies and schools to improve the military, technical, and political knowledge of intermediate and senior command personnel were an important element of the training system for producing top-level military cadres. Almost all top-ranking Red Army command and supervisory personnel studied in the Higher Academic Courses. In August 1924, these courses were superseded by the Higher Improvement Courses for command personnel, which were later merged with the Military Political Courses.

Owing to the constant improvement in the performance of the military educational institutions and of other elements in the cadre training system, each year the Soviet Armed Forces received a still better qualified contingent of commanders, political workers, and other specialists.

The commanders who graduated from Soviet military educational institutions had a good military and political grounding, were boundlessly dedicated to the Soviet Motherland and to the ideals of communism, and possessed high moral and fighting qualities.

The successful restoration of the national economy, along with the stronger financial position of the USSR, permitted improving the material well-being of RKKA command personnel. On the average, they were 30 to 40 percent better off at the end of 1924 than previously. There was an

improvement in the supply of rations and other goods to Army and Navy personnel of all ranks.

Much attention was paid to training and indoctrinating junior command personnel, whose importance was especially increased by expansion of the Red Army's territorial development.

In December 1924, a statute was enacted on field schools for RKKA junior command personnel. In accordance with this statute, regimental schools were set up to turn the most literate and capable Red Army men into junior commanders. After 7 to 10 months of training, the graduates resumed active service in their units as junior commanders. "During the past few years," remarked K. Ye. Voroshilov, "we have managed to solve one of the most difficult problems of our military organizational development. *We have at present in the Red Army's ranks trained junior command personnel, something we never had during the Civil War.*" In 1928, of the Ground Forces' junior commanders, about 15 percent were party members or candidates, and 22.5 percent were members of the Young Communist League. In class affiliation, 21 percent were workers, and 73 percent peasants."

Improvements were made in training reserve command personnel. A statute was enacted in December 1925 on the procedure for conducting refresher training of supervisory personnel on long-term furlough or in the RKKA Reserve. Such refresher training was done by division staffs. Reserve command personnel were called up for training assemblies, war games, battlefield tours, and maneuvers. Such training was of about 12 months' total duration for the entire time spent in the reserves. Upon completion of refresher training, a check on assimilation of the program was made and a certification was proposed to determine the suitability of the trainees for specific wartime posts.

The intense work in training and indoctrinating military cadres met with definite success. The Central Committee resolution "On RKKA Political and Command Personnel," dated 25 February 1929, contained the following passage: "Since the military reform of 1924, considerable success has been achieved in improving the political and martial competence of supervisory personnel cadres, with the result that at present the RKKA has trained and politically stable supervisory personnel who fully guarantee the combat efficiency of the Army as the weapon of the dictatorship of the proletariat."

One of the missions in the organizational development of the Soviet Armed Forces during the years of the military reform was to generalize the experience of past wars and the postwar development of military affairs, and to incorporate such generalization into manuals and regulations. Without this, consensus among Army and Navy cadres could not be reached

on the most important questions of military theory, nor could uniformity and purposefulness be achieved in training and indoctrinating the troops.

In 1925, the Directorate for Applied Research on the Experience of Warfare was founded within the RKKA Staff. To attract as many command and supervisory personnel as possible to work in military science, the Military Scientific Society was founded, with branches in military academies, military district and fleet staffs, and in many Red Army divisions and corps. In 1926 there was an All-Union Military Scientific Society Congress, at which military theoretical work was reviewed and future work was outlined.

During the latter half of the twenties, a number of major military history works appeared, notably those of V. F. Novitskiy, I. I. Vatsetis, and A. M. Zayonchkovskiy on World War I; and of A. S. Bubnov, S. I. Gusev, N. Ye. Kakurin, V. A. Melikov, Ye. A. Shilovskiy, N. Ye. Varfolomeyev, and others on the Civil War.

Results of theoretical military research were published during the same period. These treatises had a strong influence on the development of the Soviet art of war and, in particular, on the emergence of views on military organization and the conduct of combat actions. Especially influential were the works of M. N. Tukhachevskiy, S. S. Kamenev, V. K. Triandafillov, A. A. Svechin, A. I. Verkhovskiy, S. M. Belitskiy, A. N. Lapchinskiy, and B. B. Zherve.

M. V. Frunze made a great contribution to the development of Soviet military thought. For good reason, his treatises have become part of the "golden fund" of Soviet military science.

It was of paramount importance that the achievements of abstract military thought be inculcated in the troops, and that the regulations governing all aspects of military life reflect these achievements. Incidentally, before 1924 there were no new regulations giving the force of law to generalizations of the lessons learned from the history of warfare and, above all, from the history of the Civil War.

At the end of April 1924 the Main Regulations Committee sat, under the chairmanship of M. V. Frunze, and made numerous important decisions. First of all, subcommittees were created to develop regulations for each of the branches. The main committee decided that the regulations governing a particular branch would be listed in the new Field Manual, and that regulations common to all the branches would be included in the new Field Service Regulations."

As early as 1924-25, the Red Army received the following updated regulations: Interim Infantry Field Manual, Part I (Formations and Proce-

dures); Interim Cavalry Field Manual, Part 2 (Formations and Orders of Battle); Interim Artillery Field Manual in Six Parts; RKKA Interim Armored Forces Field Manual (Formations and Procedures); RKKA Interim Field Service Regulations, Part 2 (Division, Corps); Interim Garrison Duty Regulations; Interim Disciplinary Regulations; Interim Rifle Regulations, Part 2 (Combat Use of Small Arms), and Part 3 (Drill). A number of manuals and guides on such subjects as camouflage, pontoon techniques, and the conduct of war games by command personnel were also published during the same period.

The advent of updated regulations and manuals was an important event in the history of the Red Army. It played a major role in strengthening discipline and in promoting systematic and purposeful training and indoctrination of personnel in all branches.

The new regulations reflected the most important tenets of the contemporary Soviet art of war: close coordination of all the branches in combat; active combat operations; recognition of the offensive as the fundamental form of combat; wide maneuver of men and equipment; a creative approach to the quest for new ways to conduct combat actions; and comprehensive consideration of all moral and material factors, as well as of the specific situation, when organizing and conducting combat actions. The regulations emphasized the decisive role in combat of the individual and of his moral and political stability, as well as the paramount importance of party-political work before and during a combat action.

These tenets were set forth at length in the 1925 RKKA Interim Field Service Regulations. A central place in the regulations was devoted to organizing and conducting a battle. Defining the basic principles underlying a modern battle, the regulations stated that the battle is the most decisive means of achieving the goals of an operation. The battle is an instrument whereby the enemy's men and equipment may be annihilated, his organizational unity disrupted, and his morale broken. The modern battle is fought with the united efforts of all branches—infantry, artillery, cavalry, armor, aviation, engineer troops, and so on. The basic and decisive branch of troops is the infantry. Victory in battle is achieved by bold and decisive actions based on careful analysis and a persistent endeavor to achieve the assigned goal, and by a revolutionary will to win for the masses in combination with a soldier's determination to prevail, whatever the effort, through adept use of combat equipment. Victory in battle depends as much on proper control of the troops as on concern to maintain their combat efficiency, the latter being achieved by the efforts of political and command personnel in peacetime and wartime alike. Only well-disciplined, well-trained troops who have complete faith in their cause and in their own strength can effectively accomplish the command's aims.

Combat regulations for the individual branches were formulated and reformulated in accordance with the general principles in the 1925 Interim Field Service Regulations; consideration was taken of advances in military equipment and thought. The RKKA Infantry Field Manual, Part 2, (BUP-27) went into effect in 1927. In the same year, the Interim Artillery Regulations were superseded by the Artillery Field Manual (BUA-27), Parts 1 and 2. In 1928, the troops received the new Infantry Field Manual, Part 1, and the RKKA Armored Forces Field Manual.

"The overall improvement in the Army's living conditions and work has opened up the prospect of putting its training and indoctrination on a firm footing," M. V. Frunze remarked at the end of 1924. "In fact, we are only now in a position to get on with the job of training as it should be done. Formerly, owing to personnel turnover, material hardships, lack of well-defined terms and conditions of service, and so on, we were virtually deprived of all opportunity to build an army as a real fighting force."

All aspects of Red Army training and indoctrination were discussed at a Revolutionary Military Council of the USSR plenary session in November-December 1924. The basic ideas in the proposed training program were the following: personnel had to be trained and prepared to conduct offensive actions as the basic and most important type of Red Army combat operation; mastery of the art of coordinating the branches in the most effective way had to become a prime objective in the combat training of the troops and in the training of command cadres above all; the leading role in combat belonged not to materiel but to the personnel possessing it; the emphasis had to be shifted to training in simulated combat situations.

Guided by the instructions of the Revolutionary Military Council's plenary session, the RKKA Staff developed a unified training plan applicable to regular and territorial units and designed to cover the entire period served by a soldier in the Red Army's ranks. This plan was of paramount importance in producing a radical improvement in troop training and indoctrination. The people's commissar for military and naval affairs reported to the 4th All-Union Congress of Soviets that "... 1925-26 was a turning point for our armed forces in combat training. At the 1926 autumn maneuvers, the rank and file did well in drill and tactical training and made considerable progress toward mastery of the methods used in waging modern warfare."

The party's Central Committee, tireless in its efforts to intensify political work in the Red Army, implemented a number of measures to invigorate its party-political organs and to motivate the Army's party members to accomplish the missions of the military reform.

In April 1924, the Revolutionary Military Council of the USSR issued the directive "On the Recruitment of Command Personnel into Political

Education Work," which required commanders of all ranks to participate personally and systematically in carrying out party-political work. The requirements of this directive acquired the force of law when incorporated in the Interim Internal Service Regulations, which defined, for the first time in the Red Army's developmental history, the duties of responsible individuals in the indoctrination of their subordinates. This not only raised the effectiveness of party-political work but also added to the ideological and intellectual stature of command personnel and increased their responsibility for the political indoctrination of personnel.

In January 1925, a new statute was enacted on political instructor appointees in battalions, companies, and equivalent units. The political instructor was invested with the disciplinary powers of an intermediate-level commander and was allowed to live outside the barracks. All this increased the political instructor's importance and authority and promoted party-political work in the company—a key element of the military organism.

Steps were taken to expand and strengthen the network of party cells at the company level. The first all-armed forces conference of party cell secretaries, held in late February and early March 1925, defined the tasks of lower-level party workers. The most important were Marxist-Leninist indoctrination of party and Young Communist League members and improvement of discipline and combat efficiency in units. Party organizations were required to ensure that all party and Young Communist League members were above reproach in the performance of their military duty; to be unrelenting in their endeavor to increase the authority of the officer corps; and to raise the ideological level of political education work.

Party organizations mounted a large-scale program to implement the decisions of the conference. This strengthened the party's authority and influence considerably among the mass of enlisted men. That in turn swelled the party's ranks. Whereas in October 1924 there were 46,000 party members and candidates in the Army,¹ the corresponding figure for mid-1927 was about 90,500.²

The number of party organizations at the company level also increased. By the end of 1927, almost all units had party cells, which enabled the company (troop, battery) to become the center of party-political work among the troops.

An important event for the military's party members was the second all-armed forces conference of party cell secretaries, held in March 1928. The conference stressed the need for greater ideological consensus and solidarity among party organizations, as well as the need to promote the activity of company-level party cells and to broaden their role in the political indoctrination of personnel.

trination of personnel and in the guidance of Young Communist League organizations.

On 1 November 1928, the VKP(b) Central Committee ratified new instructions to party cells in the peacetime Red Army. Reflected here were many problems of party work that had received much attention in the reports, speeches, and resolutions at the second all-armed forces conference of party cell secretaries.

The reinforced party-political apparatus, the stronger political organs, and the party organizations' greater influence on young soldiers produced a considerable growth in the Young Communist League contingent. Whereas in October 1924 there were 36,700 Young Communist League members in the Armed Forces, the corresponding figure for mid-1927 was about 130,000." Assessing the Young Communist League's role in the ideological and political indoctrination of servicemen, A. S. Bubnov commented, "The military Young Communist League has grown immensely since 1924, and it is now the party's foremost assistant for political education work in the Red Army's ranks. The Young Communist League is the principal bearer of the party's influence in the barracks, among the air crews, and afloat.""

A strengthened, replenished party-political apparatus and a better life in the Armed Forces made possible the expansion of purposeful, planned political training and indoctrination for military personnel. Accordingly, a unified 2-year program of political instruction was begun in the 1925-26 academic year. This signified a transition to an era in which all personnel would have a grounding in political science.

Special attention was paid to party-political work in territorial formations. Urging commanders, political organs, and party organizations to intensify such work in territorial units, the Central Committee was pursuing an important goal: to make Red Army men into active, socially conscious proponents of party policy and Soviet authority in the countryside, consolidating the union of the peasantry and the working class.

During the years of the military reform, an important role in the political, technical, and general schooling of servicemen was played by adult education. Such education was done mainly in a unit's "Lenin Corner," in the regimental clubs, and in the Red Army Clubs. A prominent place in adult education was accorded to eliminating illiteracy and semiliteracy, a matter of immense state importance. Much was done in this regard by local party and soviet organizations and by teachers who conducted evening classes with Red Army men on a patronage basis.

A powerful medium for the political, professional, and cultural indoctrination of officers and enlisted men was the military press. The central

military-political daily *Krasnaya zvezda* [Red Star] appeared in 1924, and has indefatigably propagated Marxist-Leninist ideas and fought for acceptance of general party policy ever since. Its editors have done much to strengthen the Army and Navy. In a first anniversary greeting to its editorial staff, the Central Committee praised the paper's editorial policy, pointing out that in pursuing its main mission of the education, rapprochement, and cohesion of the Red Army's command and political personnel, the staff was making a positive response to our glorious Red Army's most vital needs."⁵

The number of military newspapers grew. Ten military district papers appeared in 1926-27, and five ethnic, three territorial, and two naval papers made their appearance during the same period. They had a total weekly circulation of nearly 600,000 copies."⁶

On the whole, the training and indoctrination of Army and Navy personnel became better organized during the latter half of the twenties. The content and quality of party-political work and cultural and educational work improved considerably. Combat training and political indoctrination began to be done on a systematic basis.

Restructuring the system for the political and military indoctrination of personnel, under direct Central Committee guidance, enabled the organizational and ideological level of party-political work among the troops to be raised. This, in turn, furnished a base for strengthening the Army's combat efficiency.

In December 1928, the VKP(b) Central Committee passed a resolution based on an RKKA Political Directorate report that the successes in the Army's organizational and moral-political strengthening were indissolubly linked with the activity of political organs and party organizations. The resolution stated: "The Central Committee verifies that in recent years, because of the immense successes achieved by the party and by Soviet authority in building socialism in our country, the Red Army has become stronger, and the leading role of the working class and its party in the Red Army has become better established. Both these events are closely linked with the party-political work conducted in the Army's ranks.""⁷

The positive results attained in troop training and indoctrination during 1924-28 were proven conclusively by the Kiev Maneuvers, a large-scale exercise conducted in September 1928. Summarizing the results of these maneuvers in a special message, the Revolutionary Military Council of the USSR noted that the critical missions assigned to the Red Army by the Revolutionary Military Council in combat training and political indoctrination had been accomplished in their entirety."⁸

A new, second stage in the organizational development of the Soviet Armed Forces began in 1924 and continued until the end of 1928. It was a stage of planned growth, typified by a far-reaching military reform that affected almost every aspect of Army and Navy life.

In a resolution dated 15 July 1929, the VKP(b) Central Committee spoke most highly of the progress made in the organizational development of the Soviet Armed Forces during this stage. "The past 5 years of planned growth have given us a strong, capable army which, *from the political viewpoint*, may be trusted completely, and which, *from the materiel viewpoint*, is as well equipped as our country's industrial resources permit."¹⁹

However, the economic condition of the country, and of the defense industry in particular, prevented production of modern materiel in sufficient quantities for the Red Army. Such production required no less than enormous economic development and the creation of a new industrial base for the Soviet state.

Notes

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Chapter 6. Modernizing the Armed Forces' Materiel

(1929-38)

1. The Armed Forces' Transition to a New Logistical Base

The depression that began in the capitalist countries at the end of the twenties intensified the conflict of interests among those countries. There was increased competition for markets, for sources of raw material, and for places to invest capital. Many members of reactionary ruling circles were tempted to use war, primarily against the Soviet Union, as a way out of the economic crisis.

The first center of hostilities was the Far East. In September 1931, without formally declaring war, imperialist Japan invaded northeastern China. Not encountering serious resistance, the Japanese troops occupied Manchuria and approached the Soviet border.

After seizing the northeastern provinces of China, the invaders began intensive construction, building airfields, highways, railroads, dumps, and bases near the Soviet border and turning Manchuria into a staging area for aggression against the Soviet Union.

The Western powers, primarily the United States and Britain, encouraged the aggressive aspirations of the Japanese militarists, hoping to provoke a clash between Japan and the Soviet Union.

The occurrence of a tense situation was not confined to the Far East. German imperialism, having put into power a fascist party headed by Hitler, was striving to break the bonds imposed by the Treaty of Versailles and to recover all that had been lost in World War I. Preparing for war in Europe, the fascist leadership adopted the historic policy of German aggressors: "Drang nach Osten" ("Drive to the East") Anticommunism became the watchword of Hitler's government.

The ruling circles of the imperialist countries saw in fascist Germany a power to be enlisted in the campaign to annihilate world communism and to destroy the USSR. The big Western monopolies therefore gave Hitler substantial financial and technological aid.

The Communist Party and the Soviet government saw the mounting military peril. The Soviet land was threatened with aggression in Europe and the Far East. In 1936, Germany and Japan concluded the so-called Anti-Comintern Pact, and Italy soon became a signatory. These three aggressive states, directly supported by the U.S., Britain, and France, strove by local wars and lesser armed conflicts to unleash another world war as soon as possible. In the autumn of 1935, fascist Italy attacked and seized Abyssinia, and in the summer of 1936, Germany and Italy intervened against republican Spain.

The Communist Party and the Soviet government, stubbornly supporting the cause of peace, sought to organize collective security and joint action to repulse any aggressor. Additionally, they took steps to strengthen the Soviet Armed Forces, thus increasing the country's capacity for national defense.

The growth of the Soviet Union's military power was inseparably linked with the implementation of Lenin's plan for building socialism, with industrialization of the country, with the collectivization of agriculture, with the cultural revolution, and with the trend toward further cohesion between the peoples of the USSR. The Communist Party was guided by V. I. Lenin's teaching that without an economic uplift "there could be no question of any significant improvement in our country's defensive capability."

In May 1929, the 5th All-Union Congress of Soviets ratified the 1st Five-Year Plan for the development of the economy. Outlined in that plan was an extensive program for the socialist transformation of the country. The plan's main goal was to change the USSR from a backward agrarian country into an industrial power capable of reconstructing all sectors of industry and able to put a fragmented agriculture on the road toward large-scale collective farming while creating the economic and technological prerequisites to further strengthen the Soviet Armed Forces.

A detailed program for military organizational development was presented on 15 July 1929 in the VKP(b) Central Committee resolution "On the Defense of the USSR," which stated: "The 1st Five-Year Plan for the development of the national economy will permit a considerable quantitative and qualitative improvement in the defensive capability of the USSR. Whereas the past 5 years of military development have seen a solid improvement in the Red Army's organization, the next 5 years must see it furnished with a modern logistical base."

The 16th VKP(b) Congress (June-July 1930) called for more rapid development of socialist industry, especially metallurgy. A resolution emphasized that "forced development of those sectors of industry that

will increase the *defensive capability* of the Soviet Union is a matter of paramount importance.'"

Because of the unstinting effort made by the Soviet people under the party's guidance, the 1st Five-Year Plan was completed in only 4 years, 3 months. Huge ferrous and nonferrous metallurgy, chemical, mechanical, and power engineering projects were completed in the USSR. The correlation between industrial and agricultural production changed radically. The output of heavy industry expressed as a percentage of the gross national product rose from 48 percent in 1928 to 70 percent in 1932. "Thus, *the USSR, which had been an agrarian country, became an industrial one*, thereby acquiring greater economic independence. . . ."

During the 1st Five-Year Plan, the Communist Party made much headway in introducing V. I. Lenin's cooperative concept into agriculture, the sector of the economy least amenable to building socialism. The transformation of millions of small peasant holdings into large-scale socialist farming enterprises was accomplished. This gave Soviet authority a firm base in agriculture and consolidated the position of socialism in the countryside.

The 2nd Five-Year Plan saw further progress in industrial development. The main goal of that plan was to reconstruct the entire economy on a modern technological basis. As in the 1st Five-Year Plan, the party and government attached particular importance to metallurgy, mechanical engineering, and other sectors of industry indispensable for the production of munitions and other materiel. Figures illustrating the growth in the main branches of heavy industry are given in table 2.

A result of technical progress in the main sector of heavy industry was the growth and renewal of productive capital, consisting predominantly of enterprises that were either new or completely renovated. During the 2nd Five-Year Plan alone, 4,500 large industrial enterprises went into production.'

Table 2. Output of Key Industrial Commodities in the USSR.'

Commodity	1932	1937
Electric power, billion kwh	13.5	36.2
Coal, million tons	64.4	128.0
Oil, million tons	21.4	28.5
Iron, million tons	6.2	14.5
Steel, million tons	5.9	17.7
Rolled metal, million tons	4.4	13.0

In agriculture, the 2nd Five-Year Plan saw the completion of collectivization and the triumph of the socialist order in the countryside.

Agriculture was mechanized. In 1937, the Machine and Tractor Stations had 365,800 tractors, 105,000 combine harvesters, and 60,300 trucks.⁷

Of importance for defense were the successes in socialist culture and public education. The enrollment in elementary and secondary schools increased by 8 million during the 2nd Five Year-Plan. In 1937, more than 500,000 students were in attendance at higher educational institutions. Specialists with an intermediate or higher education were graduating in ever-increasing numbers. There was an increase in the literacy of draftee contingents.

The country's economic and cultural backwardness was gradually eliminated with the building of socialism. The Communist Party and the Soviet government united all ethnic groups of the USSR into one fraternal family, promoting friendship between such groups. This friendship was a source of strength for the multinational socialist state.

The triumph of socialism in the USSR gave rise to profound changes in the country's daily life, social order, and economy. These changes received legislative sanction in the new Constitution adopted in November 1936 by the Extraordinary 8th All-Union Congress of Soviets. The Fundamental Law of the state removed the class restrictions on eligibility for military service. Defense of the socialist Fatherland was declared to be the sacred duty of every Soviet citizen.

Under conditions of growing imperialist aggressiveness, increasing the Soviet Union's defensive capability and the fighting strength of the Armed Forces became a mandatory and inalienable part of building socialism. The Communist Party instructed the military leadership to investigate the nature of the war being prepared by the imperialists and to make scientifically sound recommendations on how the Soviet Armed Forces should be developed to fight such a war.

As early as the beginning of the thirties, new trends in the development of military equipment brought the production of more advanced automatic small arms and new types of artillery, tanks, aircraft, vehicles, communications equipment, and so on. Soviet military thought considered those trends, foresaw the role of the new types of weapons and materiel in future warfare, and determined what armament would be developed and used by the Red Army's probable adversaries.

The principal demand of Soviet military doctrine was that the probable enemy's means and methods be matched by means no less potent in effective fighting strength as well as by the most effective methods of employment possible. The materiel side of Soviet military doctrine for the thirties was reflected most concisely in the five-year plans for the organizational development of the Soviet Armed Forces.

The main trends in the first five-year plan for the Red Army's organizational development were defined in the previously mentioned Central Committee resolution "On the Defense of the USSR," dated 15 July 1929. Party policy on materiel was to modernize existing armament and to develop new artillery guns, tanks, and aircraft concurrently. The Central Committee expected prototypes within two years. In 1931, when the military organizational development plan was under review, the VKP(b) Central Committee and the Soviet government gave the Revolutionary Military Council of the USSR the following guidelines for the Red Army: a) that in numerical strength, it should be on a par with the probable enemy in the main theater of war; and b) that in materiel, it should be superior to the probable enemy in the decisive areas of artillery, tanks, and aircraft.⁸

Accorded top priority was the complete reequipping of the Red Army with the latest weapons and combat equipment, paying particular attention to artillery, armor, air materiel, and automatic small arms.

Assigned at the same time was the task of securing a significant increase in the fighting strength of the Red Navy.

Owing to the great effort of the Communist Party and to the selflessness of the entire Soviet people, the first five-year plan for military organizational development was completed. However, it was not possible to complete the materiel modernization of the Soviet Armed Forces in a single five-year period.

On 8 June 1932, People's Commissar for Military and Naval Affairs K. Ye. Voroshilov, reporting to the government on the results of the first five-year plan, noted that the Army was insufficiently mechanized, that the artillery lacked mechanized traction, and that tanks and armored cars were not available in the numbers needed to develop continuous and deep operations.⁹ The work of providing the Red Army with sufficient modern materiel was therefore continued on a wide front and was largely accomplished by the end of the thirties.

The second five-year plan for military organizational development provided for a Red Army that would be capable, by the end of 1938, of repulsing any imperialist aggression by inflicting devastating blows on the invading armies while fighting on two or more fronts simultaneously.¹⁰ The plan also intended that each service of the Armed Forces would be better equipped, and that the main branches would have greater firepower and striking power as well as more tactical and operational mobility. The plan also provided for improvement of combat skills among personnel.

Implementation of the materiel updating plan was beset by formidable difficulties primarily because of a lack of designers. Specialists in the

design of military equipment were rare, and in some areas, such as tank construction, there were none at all.

During the first half of the thirties, in accordance with the Central Committee's instructions, specialized research institutes, design bureaus, and laboratories were founded to develop new types of weapons and combat equipment.¹¹

The post of chief of armament for the Red Army was instituted in July 1929 to provide direct management for the Red Army's materiel updating. This post was occupied by I. P. Uborevich until 1931. Its next incumbent was M. N. Tukhachevskiy, who at the same time served as deputy people's commissar of military and naval affairs. In November 1931, a special directorate was formed within the central military administrative apparatus to direct the Red Army's motorization and mechanization program. It was headed by I. A. Khalepskiy. Reorganization of the War Department resulted in a more purposeful approach to materiel updating problems, particularly in the development of correct views on the nature of modern armament and on the technical requirements for combat equipment.

The main trends in the development of the Ground Forces focused on increased mechanization, motorization, and firepower, which resulted in superior striking power and more mobility for units and formations. Accordingly, attention was paid primarily to equipping the troops with more advanced small arms, artillery of all types, and tanks, as well as to introducing motor vehicles on a wide scale.

During the 1st Five-Year Plan Soviet armorers, headed by the eminent scientists V. G. Fedorev, A. A. Blagonravov, and N. M. Filatov, and by the designers V. A. Degtyarev and F. V. Tokarev, among others, developed a design theory and produced prototypes of new small arms.

The Ground Forces were issued an improved light machine gun of the Degtyarev type and an improved heavy machine gun of the Maxim type. They also received the model 1891/30 rifle, a modernized version of the renowned .30 caliber rifle attributed to Captain S. I. Mosin. Experimental research on an automatic rifle was in progress.

At the beginning of the thirties, Soviet small-arms designers invented a new individual automatic weapon for close combat. It combined the advantages of the pistol (lightness, portability) with those of the machine gun (high firepower). Of the several prototypes made, the Degtyarev sub-machine gun (PPD) was acknowledged to be the best.

Besides being improved, small arms were put into mass production. The output of rifles during the latter half of the thirties exceeded that for

1930-34 by a factor of 3.6; the corresponding factor for machine gun output was 1.8.¹² This enabled considerable improvement to be made in outfitting the troops with small arms and, especially, with automatic weapons. As of 1 October 1928, issued light and heavy machine guns numbered 8,811 and 24,230 respectively.¹³ The corresponding figures for the beginning of 1937 were about 95,000 and 60,000.¹⁴

Essentially, the artillery modernization program conducted in the twenties was confined to increasing the effective range of certain guns. This program could not eliminate the inherent shortcomings of available ordnance: a small horizontal field of fire (5 to 6 degrees) limited maneuver with fire along the front; the absence of spring suspension restricted the speed at which a gun could be moved over rough terrain; and the slotted-screw breechblock, which opened manually, adversely affected rate of fire. Finally, the modernization program did not touch heavy artillery at all. There was no alternative but to develop modern artillery and equip the troops with it.

In May 1929, the Revolutionary Military Council of the USSR approved an artillery program for the 1st Five-Year Plan. It provided for the creation of organic and High Command Reserve artillery.

New models of artillery armament were conceived by the Soviet artillery designers S. N. Makhanov, L. A. Magdoseyev, V. N. Sidorenko, A. G. Gavrilov, and others. During 1931-32, 37mm and 45mm antitank cannons, a 76mm air defense cannon, and a 203mm howitzer went into service.

In March 1934, the Council for Labor and Defense passed the resolution "On the Red Army's Artillery Armament Program for the 2nd Five-Year Plan." Its goals were to rearm organic artillery with new and better guns; to develop special self-propelled artillery; to modernize High Command Reserve artillery; and to supply the artillery with special purpose ammunition in the armor-piercing, concrete-piercing, air defense, incendiary, illumination, and other categories.

Because of the intense work of the design bureaus headed by V. G. Grabin, I. I. Ivanov, and F. F. Petrov, the following new weapons were issued to the Ground Forces: a 1937 model 45mm cannon for battalion artillery, a 1938 model 76mm cannon for mountain artillery, a 1931/37 model 122mm cannon and a 1937 model 152mm cannon-howitzer for corps artillery, a 1935 model 152mm cannon for High Command Reserve artillery, and a 1938 model 76mm cannon for air defense artillery.

New artillery ammunition of various kinds was also developed and put into mass production, as were improved instruments for artillery observa-

tion, fire control, and preparation of basic data for fire and topogeodesic support purposes.

A noteworthy achievement was the creation and issue of mortar armament which included the 50mm company mortar, the 82mm battalion mortar, the 107mm mountain-pack mortar, and the 120mm regimental mortar.

The Communist Party and the Soviet government took energetic steps to put artillery armament into mass production. As a result, the average annual output of guns of all types rose from 2,540 (1930-33) to 6,130 (1934-38). Of significant importance was small-caliber (37 to 45 mm) artillery, which accounted for 50 to 65 percent of the entire artillery inventory.¹⁵

The augmented output of artillery materiel was accompanied by an increase in the Red Army's striking power and firepower. Its field artillery inventory grew continuously. More than 7,000 field guns (not counting air defense weapons) were issued to the troops during 1928-35.¹⁶

The thirties were characterized by vigorous and diversified development of Soviet armor. Once a design was begun, the appearance of the prototype and the start of series production followed in fairly rapid succession. The following models were produced in this manner: the T-27, T-37, T-38, T-18 (MS-1), T-26, and BT light tanks; the T-28 medium tank; and the T-35 heavy tank.

The predominant tanks (the T-26 and the BT-5) possessed combat qualities that were comparatively good at the time. With a combat weight of 10-13 tons, they developed a speed of 30 to 70 km/h. The tanks were armed with a 45mm cannon and a 7.62mm machine gun.

Along with improving the combat qualities of tanks, much attention was paid to mass-producing them. This, however, was hampered by a shortage of skilled workers and by the meager issue of top-grade steels and equipment to the tank plants. These difficulties were not fully overcome until 1931. During the five-year period 1930-34, the defense industry produced 11,000 combat vehicles.¹⁷

Throughout the latter half of the thirties, tank production continued to rise. During 1935-37, the average annual output of combat vehicles exceeded 3,000.¹⁸ By the end of the 2nd Five-Year Plan, the Army already had 15,000 tanks.¹⁹ Even so, the proportion of medium and heavy tanks was negligible. The overwhelming majority were light tanks of the T-26 or BT type.²⁰

With the restoration of the national economy, the automotive industry gained strength. Whereas in 1929 it has produced about 1,000 motor vehicles and no tractors, in 1938 it produced 211,000 motor vehicles and more than 42,000 tractors.²¹ This permitted a start to be made in supplying the Army with armored cars* and other motor vehicles of various types and purposes, including motorcycles and tractors. Whereas in 1929 the Army had 2,450 motor vehicles and 300 tractors, by the end of 1935 it had more than 35,000 motor vehicles and about 6,000 tractors.²²

A most illustrative index of the degree of motorization in the Red Army is the correlation between the number of motor vehicles and the numerical strength of personnel. Whereas in 1929 there was one motor vehicle for every 240-50 men, in 1938 there was one for every 15-18 men.

Improvements in engineer materiel took the form of mechanization for engineer works and introduction of new types of bridging, fording, and demolitions equipment. Various machines powered by electric motors or internal combustion engines were provided to mechanize laborious engineer work. From 1934 onward, the troops were issued the NTP (heavy) and the NLP (light) pontoon assemblies, which long remained the basic means of staging bridge, ferry, and assault crossings.

From 1935 onward, the troops were issued mobile air compressors and mobile battery-charging-and-lighting equipment as well as excavators, graders, and trench diggers. All this made for an improvement in engineer support.

During the first half of the thirties, new types of radios made their appearance in the Army and became more and more prominent in the communications system. Signal troops were fully motorized and were given a 37 percent increase in numerical strength. A goal of the 2nd Five-Year Plan was to furnish the Ground Forces with communications equipment down to the company, troop, battery, and tank level, inclusive. However, owing to the limited capacity of the electronics industry, that goal was not fully achieved by 1938.

High-speed telegraph equipment and standardized telephone equipment were developed and put into service. The use of mechanized means to lay cables and run overhead lines of communication was begun.

All Army and Navy personnel were fully supplied with individual means of protection against toxic agents. Chemical units were issued improved

*Of the armored cars in service, two predominated: the BA-20 light armored car (weight, 2.3 tons; crew, 2 men; armament, 1 machine gun); and the BA-10 medium armored car (weight, 5.1 tons; crew, 4 men; armament, one 45mm cannon and 1 machine gun).

flamethrowers, smoke-making apparatus, terrain decontamination equipment, and other special materiel.

The socioeconomic, scientific, and technological progress made by the USSR in the thirties paved the way for a new era in Soviet aviation. In January 1930, the Revolutionary Military Council of the USSR approved an outline for the development of aircraft technology during the 1st Five-Year Plan. Emphasis was placed on bomber and fighter aviation.

New airframe factories and new engine plants were built and began production during the 1st Five-Year Plan. Facilities already in existence were modernized during the same period.

There was an increase in the number of design bureaus, research establishments, and special enterprises engaged either in the creation of aircraft prototypes, armament, and equipment or in the development of high-grade steels, aluminum alloys, and other materials for the aircraft industry.

In August 1930, the party's Central Committee founded the Central Institute of Aircraft Engine Construction to conduct and coordinate research on aircraft engines.

The design bureau headed by A. N. Tupolev had great success in the construction of heavy bombers. In its performance specifications and armament, the TB-3 surpassed all aircraft in its class the world over.

In 1935, A. A. Arkhangel'skiy's group designed the SB twin-engined high-speed bomber. The DB-3f (Il-4) appeared in 1938. It had a range of 4,000 km and a bomb load of 4,000 kg.

Soviet designers worked persistently to improve the speed, maneuverability, and firepower of Soviet fighter aircraft. In 1934, N. N. Polikarpov designed the I-16, which had a machine gun armament and a speed of up to 500 km/h.

A modified version of the I-16, designed in 1937, was called the I-153. In its ultimate variant, it had armor protection, was armed with automatic cannons, and developed a speed of over 500 km/h.

By and large, Soviet aircraft technology made great strides during the thirties. The speed, range, and bomb load of Soviet combat aircraft increased significantly.

The exemplary combat qualities of Soviet fighter aircraft were demonstrated in the annual military parades in Moscow. Credit for world-renowned intercontinental flights is due to the flyers V. P. Chkalov, G. F.

Baydukov, A. V. Belyakov, M. M. Gromov, A. B. Yumashev, S. A. Danilin, V. K. Kokkinaki, and A. M. Bryandinskiy. In 1937 alone, Soviet flyers set 30 world records in Soviet aircraft.

Showing deep concern for the development of Soviet aviation, the Communist Party and the Soviet government took the necessary action to increase domestic aircraft production. Whereas the defense industry produced 12,083 airplanes during 1930-35,²³ it produced 7,156 in 1936-37²⁴ and 5,469 in 1938.²⁵ Thus, a total of 24,708 military aircraft were produced during 1930-38.

Increased aircraft production permitted the inventory of combat aircraft to be built up continuously in numbers and in quality. Whereas in 1928 the Air Force had 1,400 airplanes, by 1935 it already had 6,672.²⁶ By virtue of the abundance and excellence of its combat aircraft, the Air Force became a potent factor in the defensive might of the Soviet state.

Achievements in industrializing the country, especially in the heavy industrial sectors, together with the development of science and technology, permitted further progress to be made in naval materiel. Much credit for such progress was due to A. N. Krylov, P. F. Papkovich, Yu. A. Shiman-skiy, V. L. Pozdnyunin, V. G. Vlasov, B. M. Malinin, and other scientists and shipbuilders. Surface ships and submarines got powerful gun armament and improved mines and torpedoes.

The new cruisers were armed with 180mm guns with a range of 207 cables (38.3 km) and a rate of fire of 3 rounds per minute. The new destroyers were armed with 130mm guns with a range of 139 cables (25.7 km) and a rate of fire of 10 rounds per minute. Such artillery systems were also widely used for coastal defense. Surface ships of medium displacement and large submarines were armed with new 100mm guns with a range of 118.5 cables (22 km). At the end of the thirties, naval river vessels got 82mm rocket launchers.

Soviet scientists and engineers developed the world's first 100mm air defense system featuring automatic laying. The new cruisers were equipped with this system.

A USSR Defense Committee resolution to create an underwater-weapons industry played an important role in the development of torpedo armament. In particular, it permitted the accelerated development and production of torpedoes with superior combat characteristics. New torpedoes with a speed of 51 knots (94.4 km/h) went into service in 1938.

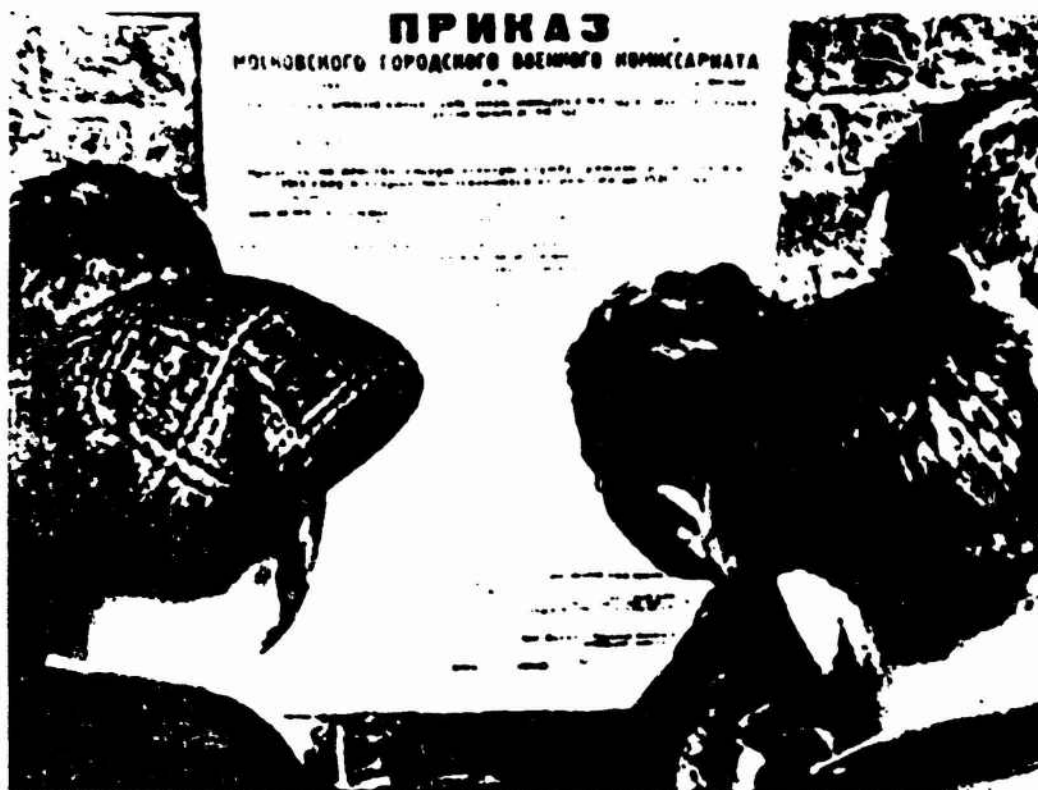
The advent of the five-year plan era was not merely a time of modernization for naval weapons and equipment: it was also a time of growth for shipbuilding techniques. From 1930 onward, Soviet shipyards gradually



Deputy Chairman of the Revolutionary Military Council of the USSR M. V. Frunze conducts a meeting with commanders of military districts. Among those present are K. Ye. Voroshilov, I. S. Unshlikht, K. S. Yeremeyev, A. S. Bubnov, M. N. Tukhachevskiy, A. I. Yegorov, S. M. Budennyy, I. P. Uborevich, A. I. Kork, R. P. Tydeman, I. E. Yakir, and M. K. Levandovskiy, November 1924.



Conscripts of the 23rd Rifle Division on exercises, 1925.



An order issued by the Moscow military commissar on a call-up for active duty, 1936.



Taking the military oath, 1939.



Red Army men study the Degtyarev light machine gun, 1934.



Field exercises in the Western Special Military District, 1940.



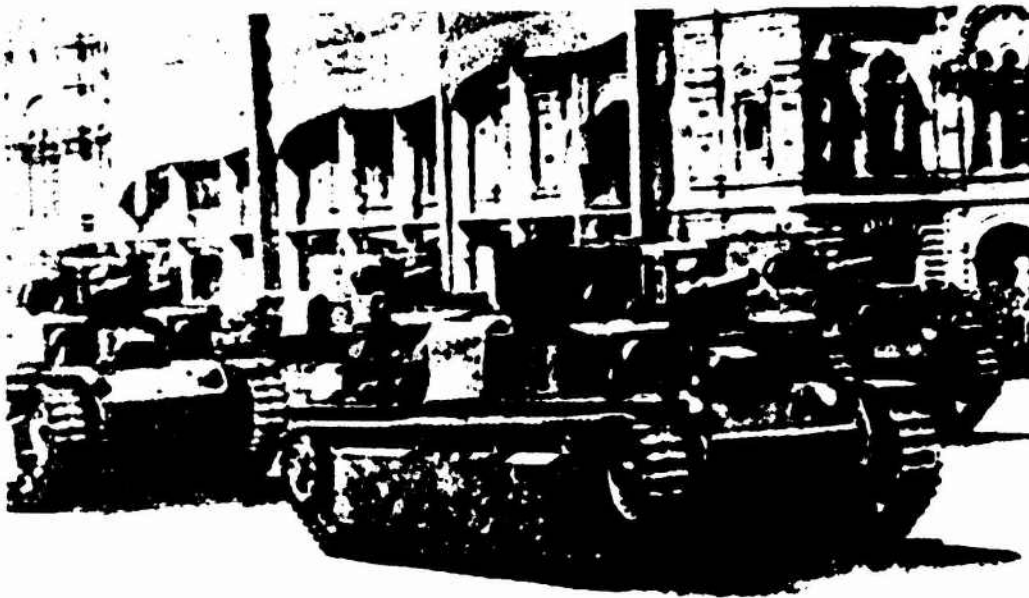
Artillerymen practice direct laying.



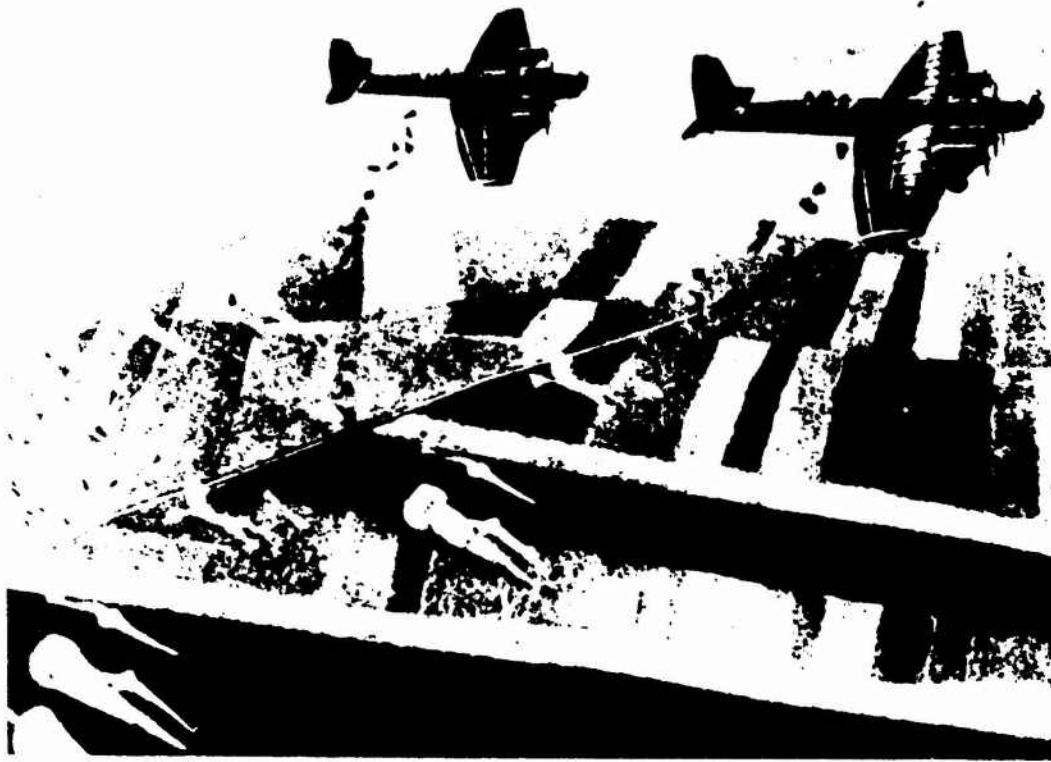
Air defense gunners on field exercises.



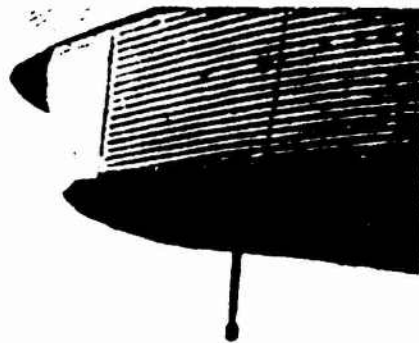
The Kiev Maneuvers, 1935.

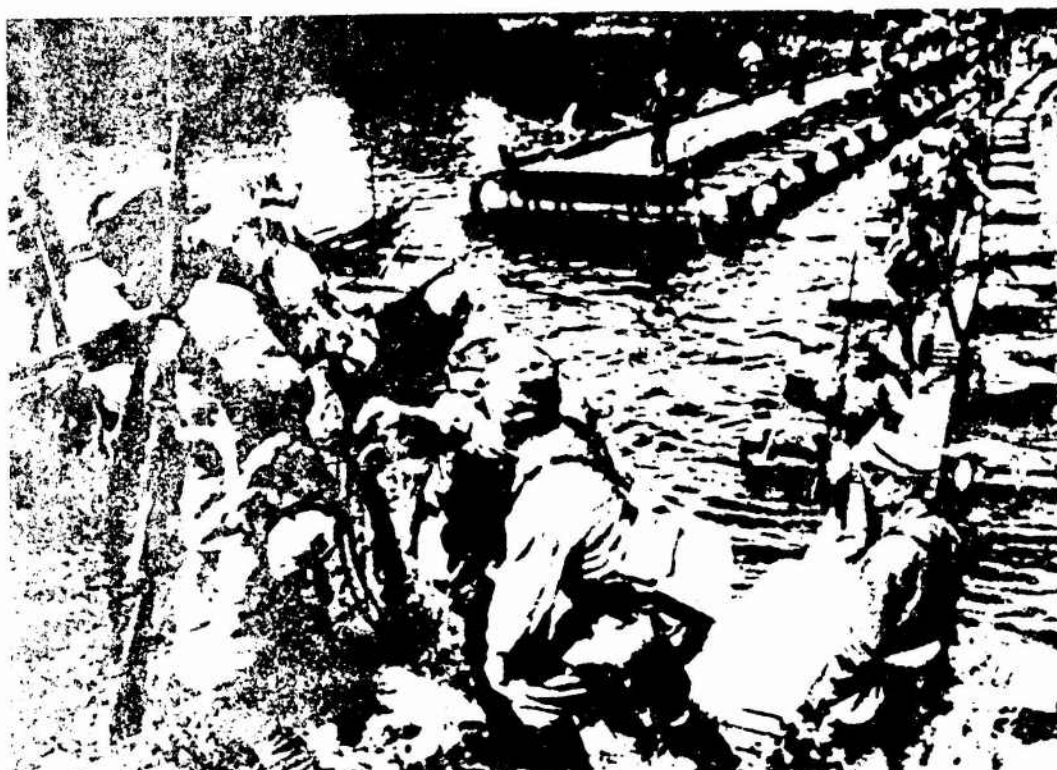


I-28 medium tanks passing through Red Square, 1 May 1941.



Paratroopers.





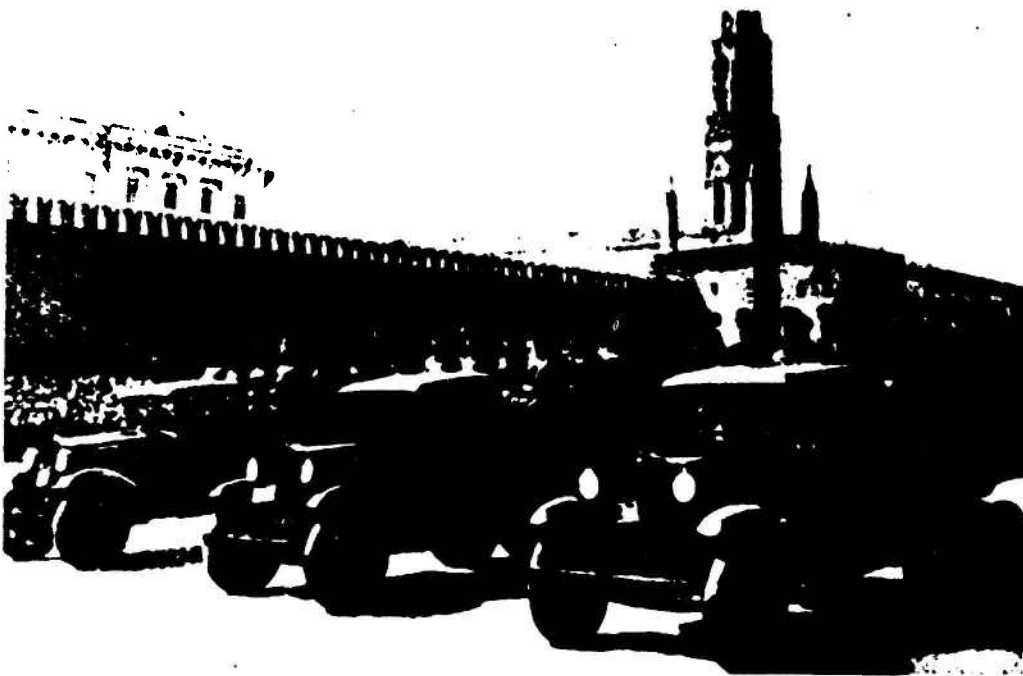
Troops of the Khar'kov Military District on exercises, 1937.



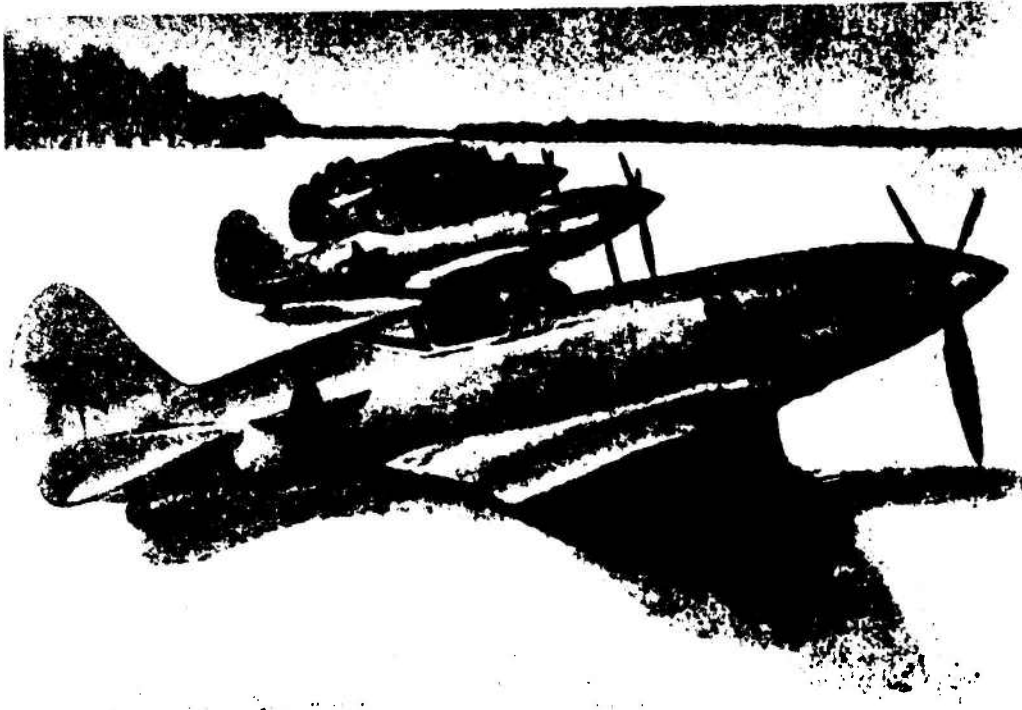
Signalmen undergoing combat training.



At the command "Gas!"



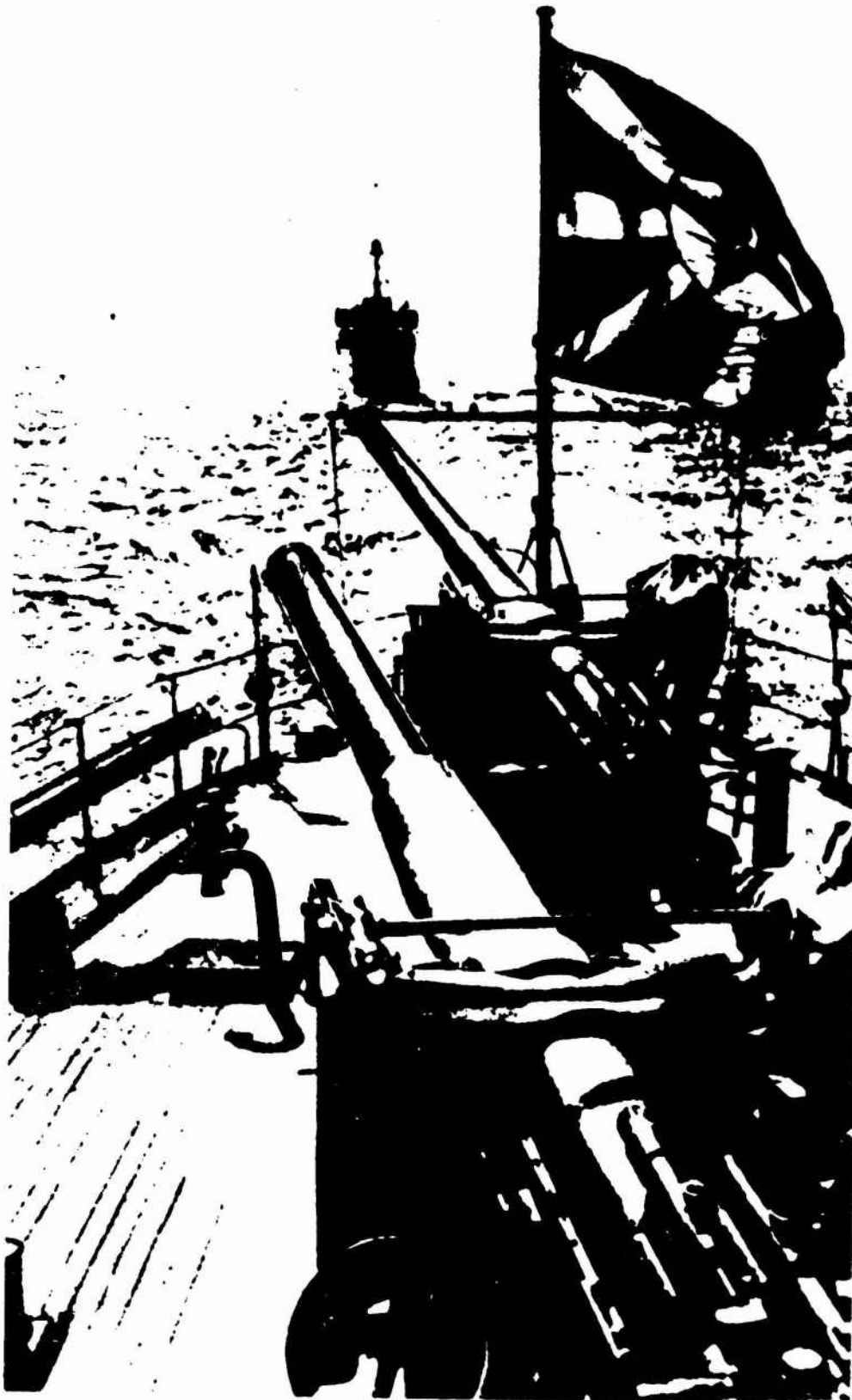
Motorized units cross Red Square, 1933.



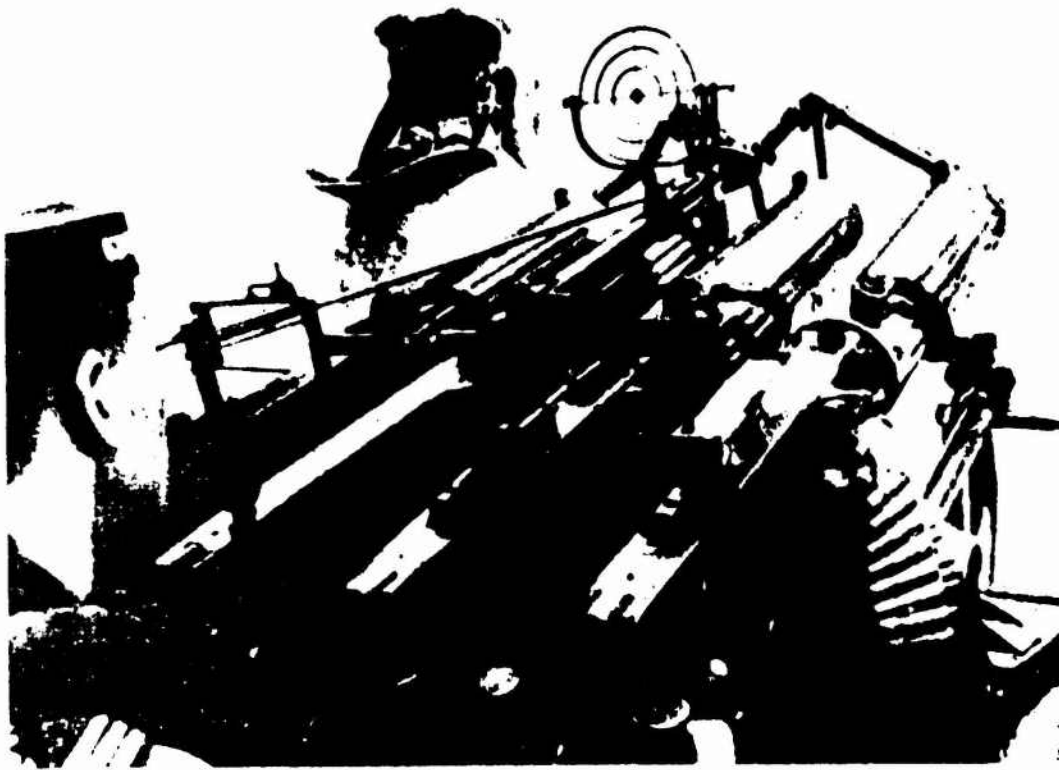
MiG-3 fighters on an airfield, 1940.



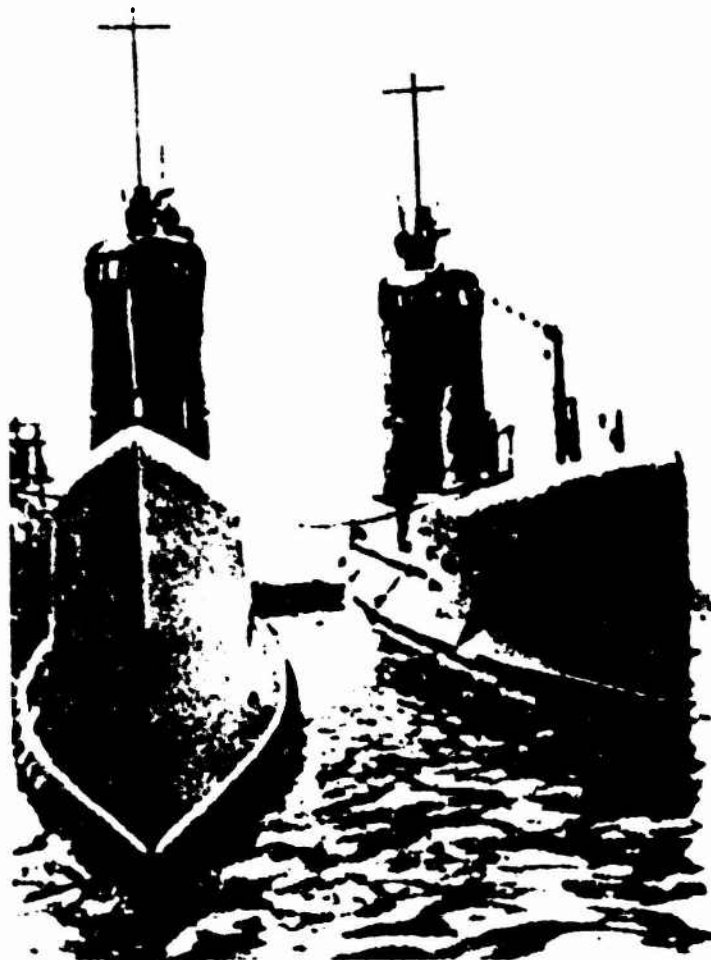
A TB-3 heavy bomber, 1935.



Warships of the Red Banner Baltic Fleet at sea, 1932.



Manning an antiaircraft gun, 1936.



K-class submarines, 1940.



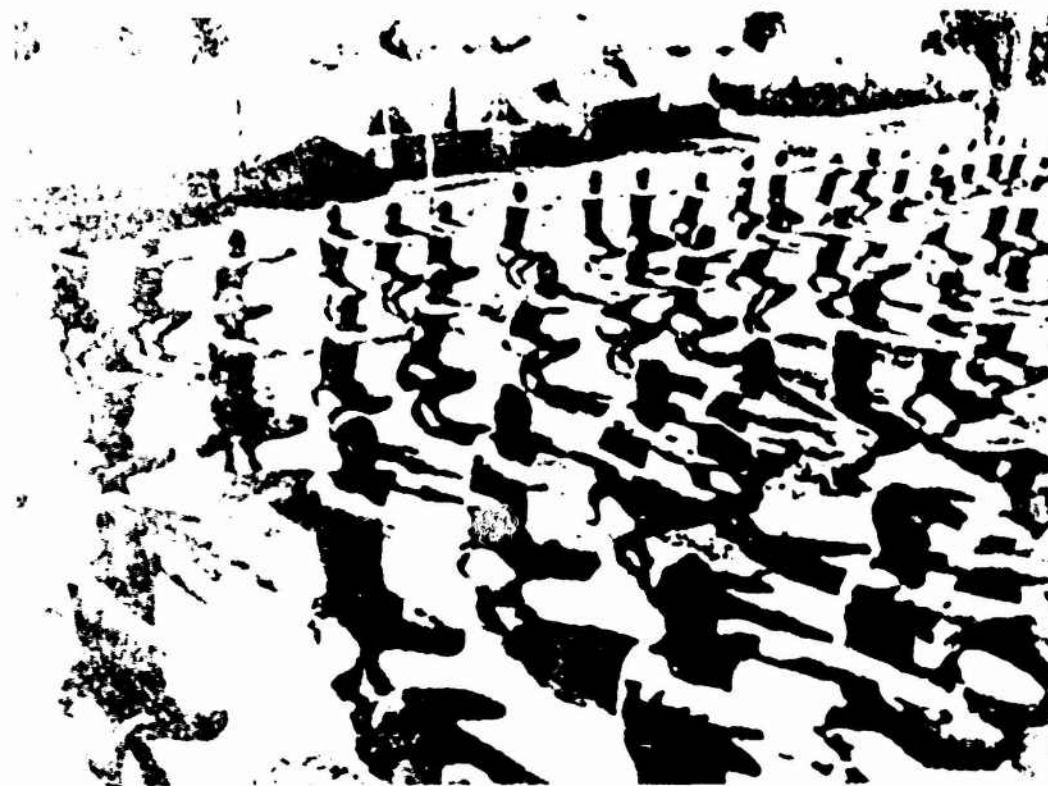
The first special purpose units graduating class of the Shepetovskiy Military District, 6 June 1923.



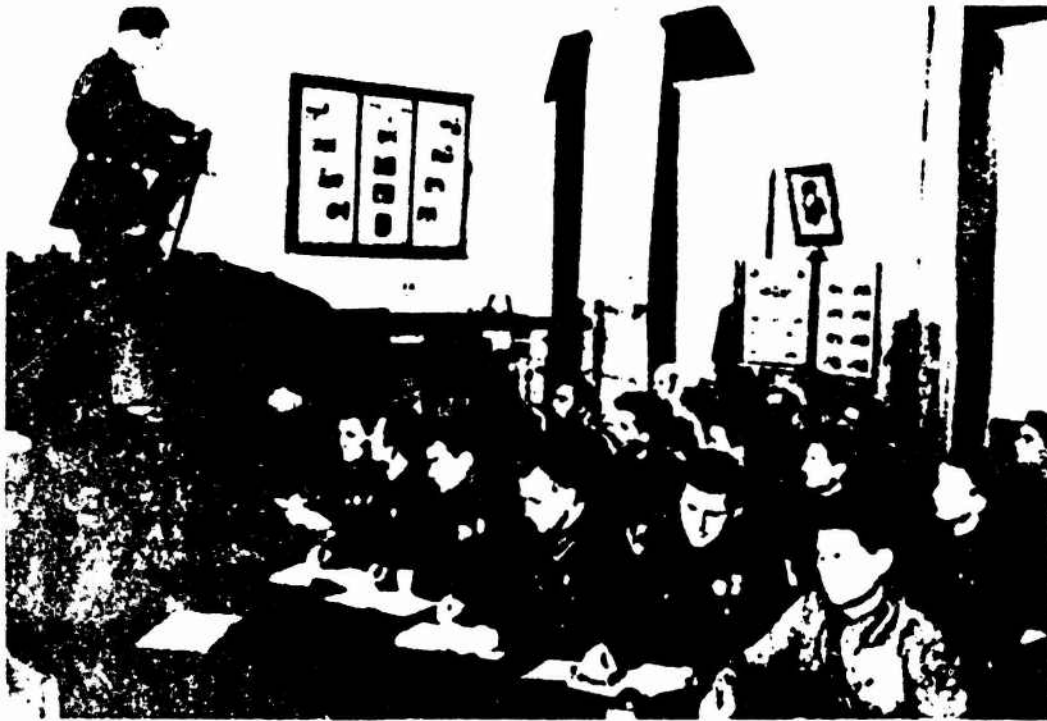
At the border.



Red Army men on a conducted tour.



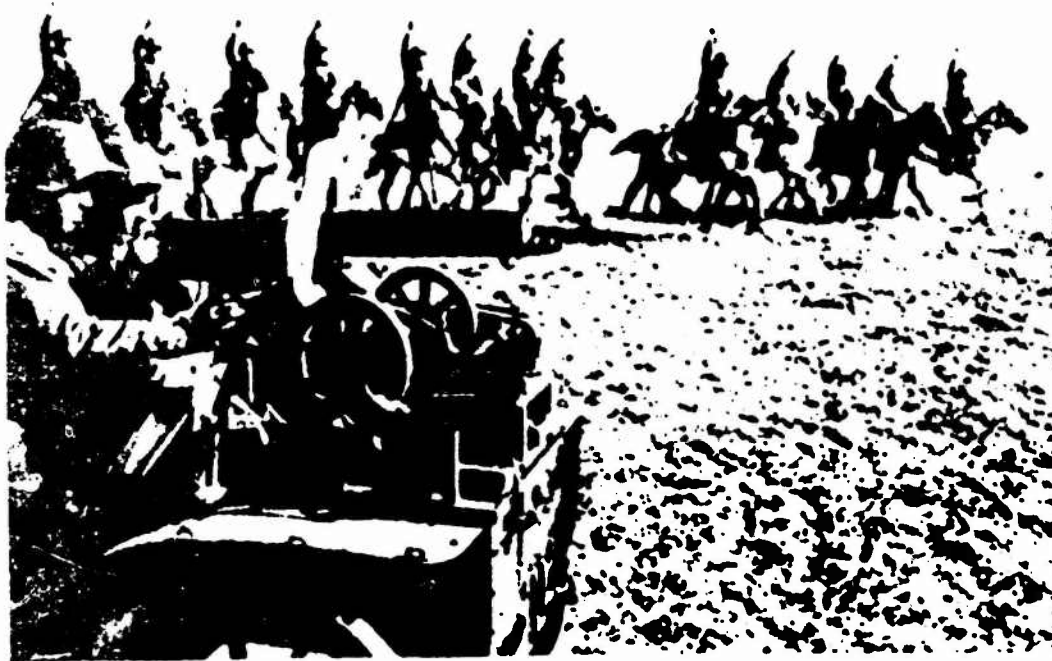
Calisthenics, 1936.



Students at the RKKA's Military Academy for Mechanization and Motorization, 1940.



Future naval officers undergoing instruction, 1940.



Tactical exercise for troops of the Belorussian Military District.



People's Commissar for Defense, Marshal of the Soviet Union S. K. Timoshenko discusses an exercise by the troops of the Western Special Military District, 1940.



If war breaks out tomorrow. . . .

mastered the assembly of hulls from prefabricated sections. Riveting was replaced by automatic welding. These and other innovations reduced the time required for hull construction considerably. During the same period, powerful new propelling machinery began to be produced for naval vessels: steam plants for cruisers and destroyers, and diesel installations for smaller surface ships and submarines.

The battleship *Oktyabr'skaya Revolyutsiya* underwent a modernization so extensive that it entailed an increase in displacement from 23,000 tons to 27,000 tons. All three Soviet battleships—*Marat*, *Oktyabr'skaya Revolyutsiya*, and *Parizhskaya Kommuna*—belonged to the Baltic Fleet. Aware of the need to reinforce the Black Sea Fleet, the Soviet government decided that *Parizhskaya Kommuna* and the cruiser *Profintern* should be rebased at Sevastopol'. Accordingly, these warships sailed on 15 November 1929 as a detachment under the command of L. M. Galler and, after circumnavigating the European peninsula, arrived at their destination on 18 January 1930. Two new battleships were laid down in 1938.

The largest surface warships of Soviet construction were the Kirov class and Chapayev class light cruisers. Their building program gained momentum in 1936-37.

The construction of destroyer leaders began in 1932. The leader differed from the destroyer in greater speed, better maneuverability, and increased armament. The Soviet leaders were the fastest ships of their type in the world. By the end of 1939, four leaders were in service: *Leningrad* in the Red Banner Baltic Fleet, *Khar'kov* and *Moskva* in the Black Sea Fleet, and *Baku* in the Pacific Fleet.

The construction of the Gnevnyy class and Storozhevoy class fleet destroyers began in 1935-36. These ships had great speed and powerful gun and torpedo armament.

Much attention was paid to the development of motor torpedo boats, which were considered highly effective in shallow coastal waters and in other areas of difficult navigation.

Escort vessels, submarine chasers, minesweepers, and armored launches were put into service in ever greater numbers. Besides their basic role in naval operations, such craft could be used for ground troop support in maritime theaters.

A prestigious place in the annals of the Soviet Navy belongs to the submarine service. As early as the end of the twenties, the first Soviet submarines were laid down at a number of shipyards. They belonged to the Dekabrist class. The first half of the thirties saw the following submer-

sible craft in commission: Leninets class [large] submarines, Shchuka class and S-class medium submarines, and Malyutka class small submarines. The building of oceangoing K-class submarines began soon afterwards.

The Communist Party and the Soviet government were unwavering in their attention to the buildup of the submarine fleet. Whereas the Navy received only 6 submarines from the builders in the 1st Five-Year Plan, it received 137 during the 2nd Five-Year Plan.²⁷

The medium submarines had a surface displacement of 780 tons, a top speed of 20 knots, and a diving depth of 90 meters. Such a submarine was fitted with six torpedo tubes and was armed with one 100mm gun and one 45mm gun.

The Soviet Navy received new aircraft. During the late twenties, a special seaplane design bureau began production of the ROM-1 and ROM-2 flying boats (open-sea reconnaissance aircraft). Under the direction of A. N. Tupolev, the MK-1 six-engine, twin-pontoon seaplane (naval cruiser) and the MTB-2 four-engine flying boat (naval heavy bomber) were built. The Navy also made extensive use of the MBR-2 flying boat (naval short-range reconnaissance aircraft). Beginning in the mid-thirties, naval aviation began receiving the R-5 reconnaissance aircraft, the TB-1 and TB-2 heavy bombers, and the DB-3 long-range bomber.

Fourteen fortified maritime regions for coastal defense were completed in 1933. Coastal defense units were equipped with artillery systems of 305mm or greater caliber. Especially formidable were the fixed turret batteries equipped with electrically powered gun laying and ammunition feed. Such batteries were stocked with enough ammunition and rations for prolonged endurance even in isolation.

Thus, by the end of the thirties the Soviet Armed Forces had been put on a new materiel footing. In armament and combat equipment, the Armed Forces were not inferior to those of the great imperialist powers, and in specific instances had surpassed them. However, the advent of modernized materiel entailed a quest for new organizational forms.

2. The Transition to Regular Armed Forces

The Soviet Armed Forces continued to employ the mixed system of development until the mid-thirties. However, the international situation then changed profoundly. The rise of militarism in capitalist countries, with a risk of attack on the USSR, demanded a change in military development policy. The VKP(b) Central Committee and the Soviet government decided to make a transition from the mixed, territorial and regular system to wholly regular Armed Forces during the second half of the thirties.

Such a transition was made possible by the USSR's economic successes and increased economic capabilities.

An important factor favoring the transition to a regular army was the huge increase in the amount and complexity of materiel, which in turn engendered substantial changes in the methods of waging war. To master this materiel during brief territorial assemblies was becoming more and more difficult. What was needed was systematic study of such materiel for longer periods. This requirement was most readily met with regular troops.

The changes in the Armed Forces' system of organizational development were also dictated by the growing need for mobilization and combat readiness.

The military theoreticians of fascist Germany believed the essence of future warfare to be its total and blitzkrieg character, which regarded all means as permissible to smash the enemy. Surprise was seen as one of the most important prerequisites for victory. In these circumstances the readiness of Soviet troops to repulse any aggressor acquired particular importance, and such readiness was attainable only by regular troops.

In carrying out the transition to a regular army, the Central Committee and the Soviet government were guided by V. I. Lenin's words of wisdom: "... It is necessary that you assimilate the indisputable truth that the Marxist must recognize life as it is lived, accepting the actual facts of *reality*, and must not go on clinging to yesterday's theory. . . ."

The transition to a regular system of development was accompanied by an increase in the strength of the Armed Forces: whereas in 1935 they were 930,000 strong,⁹ by 1 January 1938 they had reached a strength of 1,513,000 men.¹⁰ There was also a change in the correlation between the number of regular and territorial divisions. Before 1935 only 26 percent of divisions were regular, while the other 74 percent were territorial. By the end of 1935, 77 percent of divisions were regular, and only 23 percent were territorial.¹¹

In building a regular army, it became necessary to improve the organs of military administration. In the mid-thirties, higher military management was guided by three distinct organs: the permanent Defense Commission under the Council of People's Commissars of the USSR; the Council for Labor and Defense; and the People's Commissariat for Military and Naval Affairs, headed by the Revolutionary Military Council of the USSR.

In practice, such a system of military management proved susceptible to duplication. To eliminate this shortcoming, it was necessary to assign

functions more precisely and to do away with certain components of the higher military organs. On 20 June 1934, the Central Executive Committee of the USSR passed a resolution disbanding the Revolutionary Military Council of the USSR. The People's Commissariat for Military and Naval Affairs was renamed the People's Commissariat for Defense.³²

The People's Commissariat for Defense was entrusted with the operational employment of the Soviet Armed Forces in wartime and peacetime and with the formulation of long-term plans for their organizational development. The commissariat was required to manage the combat training and political indoctrination of personnel and the development and supply of military equipment. The commissariat was also obliged to oversee diverse matters such as recruitment, defensive works, and air defense.

The Military Council was formed in November 1934 under the People's Commissariat for Defense. The council's decisions were ratified by the People's Commissariat for Defense and were implemented by its orders and instructions. The Military Council's members were appointed by the Council of People's Commissars of the USSR from nominations by the People's Commissariat for Defense.

On 22 September 1935, the RKKA Staff was transformed into the RKKA General Staff and given the following responsibilities: to solve broad problems of national defense; to formulate plans for the organizational development and mobilization of the Armed Forces; to direct defense research; to organize premilitary training; and to perform other duties. The first chief of the RKKA General Staff was A. I. Yegorov, who had been chief of the RKKA Staff since 1931. He was succeeded as chief of the RKKA General Staff in 1937 by B. M. Shaposhnikov.

On 28 April 1937, to unify all measures and questions of national defense, the Defense Commission under the Council of People's Commissars of the USSR was turned into the Defense Committee of the USSR. The Council for Labor and Defense was disbanded simultaneously.

In view of the Navy's growth and its greater importance in the overall scheme of national defense, at the end of 1937 the Central Committee and the Soviet government decided it was necessary to create the independent All-Union People's Commissariat for the Navy. P. A. Smirnov became its first people's commissar.

In May 1937, the military councils at the military district, fleet, and army levels, which had been abolished in 1934, were reinstated. The military council was the highest authority in a military district, reporting directly to the people's commissar for defense (for the Army), or to the people's commissar for the Navy (for the fleet). The military councils bore full respon-

sibility for the morale and political awareness of service personnel, and for their mobilization and combat readiness.

The overall structure of military administrative organs, as it had evolved by 1939, corresponded to the changed conditions of Soviet Armed Forces development. This structure ensured that the Communist Party's military policy would be implemented and that firm command and control and constant combat readiness would be maintained.

The modernization of materiel and the transition to a regular army gave rise to substantial changes in the Army's structure, in the organization of the branches, and in the correlation between the services of the Armed Forces.

During 1929-38, the Ground Forces, the most massive service of the Soviet Armed Forces, concomitantly with absolute growth, dropped from 87.7 percent to 75.2 percent in relative strength. The relative strength of the Air Force increased from 5.2 percent to 12.8 percent, and of the Navy from 5.8 percent to 9.7 percent.

The Ground Forces gained in firepower, striking power, mobility, and maneuverability during their organizational development.

The Army's high materiel level affected the composition and organization of rifle troops substantially. In 1929, there were 70 rifle divisions, 41 of which were territorial.³³ By the end of 1938 there were 98 regular divisions and 5 independent rifle brigades.³⁴

A territorial formation's transition to a regular footing was accomplished by systematically increasing the numerical strength of its permanently assigned personnel and creating regular units within it. At first, the territorial formation became mixed; then, in proportion to the increase in numerical strength, it became regular.

In December 1935, the People's Commissariat for Defense approved a new organization table for the standard wartime division. Such a division consisted of three rifle regiments, a tank battalion, an independent reconnaissance battalion, an independent air defense battalion, an independent signal battalion, and an engineer battalion. Although the table underwent minor amendments in later years, it remained basically unchanged until the outbreak of World War II. The trend in the rifle division's authorized fighting strength is shown in table 3.

The rifle division got better guns, including guns in the air defense and antitank categories. The rifle division's organization table was amended to include tank units, which significantly improved its fighting capabilities and the fighting strength of rifle troops generally. A rifle battalion of the

Table 3. Changes in the Rifle Division's Authorized Strength.
(Indexed to the 1929 T/O&E)

Personnel, arms, and equipment	Authorized strength of division		
	1929	1935	1938
Personnel	100.0	100.9	130.4
Rifles	100.0	119.4	180.5
Heavy machine guns	100.0	107.1	102.4
Light machine guns	100.0	213.3	248.8
Guns of all calibers	100.0	175.4	200.0
Mortars	100.0	900.0	1,500.0
Tanks	—	100.0*	100.0
Motor vehicles	100.0	—	672.9

*The number authorized by the 1935 T/O&E is taken as 100 percent.

1938 rifle division was allowed 65 machine guns and 16 guns and mortars (not counting tank weapons), whereas a rifle battalion of the 1929 rifle division had been allowed only 37 heavy and light machine guns and 7 guns and mortars.

The main trend in the improvement of the division's organization during these years was to increase its ability to accomplish assigned missions whether on the offensive or on the defensive. In rounds per minute of small-arms fire, the rifle division of the late thirties could surpass its counterpart of the late twenties by a factor of 1.5. In the mass of metal projected in a single volley from all guns and mortars, the former division could surpass the latter by a factor of almost 3.³

The rifle division's mechanization and motorization, together with its augmented allowance of combat equipment, gave rise to changes in the division's personnel makeup. Whereas in 1929 only 20.2 percent of its personnel were concerned with such equipment, the corresponding figure for 1938 was 41.7 percent.

The highest tactical formation, the rifle corps, was made by merging rifle divisions organizationally. The majority of rifle divisions were so merged. By the end of 1938, there were 25 rifle corps administrations in the Ground Forces.³⁴ A rifle corps belonging to a border military district consisted of three rifle divisions, two corps artillery regiments, an independent air defense battalion, an engineer battalion, a signal battalion, and other special units.

Underlying the reorganization of cavalry was the requirement that it remain an independent, mobile branch of troops with its own fire and

strike means. To meet this requirement, cavalry formations were reinforced with automatic small arms, with artillery in the field, air defense, and anti-tank categories, and with tanks, armored cars, and motor transport.

In April 1936, a new organization table for the cavalry division went into effect. According to this table, such a division was to consist of four cavalry regiments, a mechanized regiment, an artillery regiment, and a number of special units.

The composition of cavalry units and formations changed greatly. Whereas at the end of the twenties 80 percent of their personnel were cavalymen proper, only 60 percent could be so called in 1938.

The number of cavalry formations increased. At the beginning of 1929 there were 21 such formations (14 cavalry divisions and 7 independent cavalry brigades), while in 1938 there were 34 regular cavalry formations (32 divisions and 2 independent brigades). The highest operational-tactical cavalry formation was the cavalry corps, which included two or three cavalry divisions. The number of corps administrations increased from four in 1929 to seven in 1938.

Great changes took place in organic artillery. The amount of regimental and battalion artillery almost doubled. A rifle division's artillery regiment became a 4-battalion regiment instead of a 3-battalion one. The rifle division got an air defense battalion for the first time, while the rifle corps got its second artillery regiment and an air defense battalion.

By the end of 1938, the relative strength of divisional artillery had fallen from 82 percent in 1929 to 64 percent. Corps artillery had increased from 12 percent to 22 percent of the total. Battalion artillery showed an increase (from 1.5 to 4 percent), and regimental artillery grew as well (from 4.5 to 10.5 percent).³⁷

The number of High Command Reserve artillery units was increased as ordnance became available. Independent, homogeneous High Command Reserve artillery regiments were formed. Such a regiment consisted of 3 artillery battalions with 3 batteries in each. Independent, special purpose High Command Reserve artillery battalions were also formed. Whereas in 1929, High Command Reserve artillery amounted merely to 4 regiments, in 1939 it numbered 24 regiments, in addition to several independent battalions of exceptional firepower.

The Red Army's massive acquisition of tanks led to the organizational deployment of armored forces.* A special commission under the Revolu-

*Official designations for this branch were as follows: 1930-33, *motomekhanizirovannyye voyska* (motorized and mechanized troops); 1934-42, *avtobronetankovyye voyska* (armored

tionary Military Council of the USSR and headed by S. S. Kamenev was appointed to consider possible configurations for such forces; it concluded that the new branch should have the following components: mechanized formations intended to perform independent missions; tank units and formations for qualitative and quantitative reinforcement of infantry; and tank units integrated into combined arms formations.³⁸ Organizationally, the armored forces did develop in such a manner.

The creation of independent mechanized formations proved extremely difficult. In July 1929, the Revolutionary Military Council of the USSR passed a resolution which stated: "Observing that we know too little about armored forces, both in the context of tactical employment (either independently or jointly with infantry and cavalry) and in the context of the most advantageous organizational forms, it is deemed necessary to set up a permanent experimental mechanized unit by the end of 1930."³⁹ Accordingly, an experimental mechanized regiment was formed in the Moscow Military District before the summer of 1929 was over. In May 1930, that regiment was transformed into a mechanized brigade which was also, in essence, experimental. During 1930-32, this brigade served as a standard against which the operational and tactical employment of armored forces could be tested, and it also served as a basis for the formulation of tables of organization and equipment for the armored forces.

After a series of exercises, the most advantageous organization for the mechanized brigade was determined. According to a table of organization and equipment ratified in the summer of 1932, such a brigade was to consist of 4 tank battalions and several service support units. The tanks and light tanks authorized for the brigade numbered about 300 in all.⁴⁰

The study and generalization of experience in this area revealed a requirement for further organizational massing of tanks to permit the performance of large-scale operational missions. In March 1932, the Directorate for Motorization and Mechanization submitted a report to the RKKA Staff, noting that although the mechanized brigade would continue to constitute a powerful strike formation in its own right, the need would arise to merge such brigades into operationally independent formations in the next higher category, the mechanized corps. This idea found favor with a number of eminent military figures, including A. I. Yegorov, chief of the RKKA Staff; M. N. Tukhachevskiy, deputy chairman of the Revolutionary Military Council of the USSR; I. P. Uborevich and I. E. Yakir, military district commanders.

car and tank troops); 1943-55, *bronetankovyye i mekhanizirovannyye voyska* (armored and mechanized troops); and from 1956 onward, *bronetankovyye voyska* (armored troops). These terms reflect the evolution of the new branch, whose nucleus (regardless of terminology) perennially consisted of units and formations equipped with armored combat vehicles. The term *armored troops* will be used throughout the remainder of this work.

The RKKA Staff formulated an organizational structure for a mechanized corps capable of conducting all types of combat actions independently if cut off from the main force of its army (or front). Accordingly, the corps was to consist of tanks, motorized infantry, artillery, engineer units, signal units, and the necessary combat and logistic support facilities.

Four mechanized corps were formed during 1932-34: one each in the Moscow and Ukrainian military districts, and two in the Leningrad Military District. Each corps had two mechanized brigades, one small-arms brigade, and various combat and logistic support units.

In 1935, all independent tank regiments were reorganized as High Command Reserve tank brigades. A medium tank brigade consisted of 4 battalions (117 tanks, 80 of which were T-28 medium tanks, and the remainder T-26 or BT light tanks). A heavy tank brigade had a similar organization (94 tanks, 60 of which were T-35 heavy tanks, and the remainder light tanks).

The organizational forms of tank and mechanized units that were organic to rifle and cavalry formations took shape gradually, as the Army became better equipped with armor. In the mid-thirties, a rifle division had a tank battalion, and a cavalry division had a mechanized regiment. The tank battalion consisted of three tank companies. The mechanized regiment consisted of three BT-tank squadrons and one amphibious tank squadron. Each company and each squadron had 15 combat vehicles.

In 1937, the need arose to form light mechanized units for use on desert and steppe terrain. Armored car regiments, promptly reorganized as brigades, were formed in the Transbaykal Military District. Each such brigade consisted of three battalions (an armored car battalion, a small-arms battalion, and a reconnaissance battalion) and had 80 armored cars.

Thus, during the first half of the thirties, a system of organizational forms was developed for the armored forces, and deployment of such forces was realized. This system consisted of tank units organic to rifle and cavalry formations (tank battalions and mechanized regiments), of High Command Reserve tank formations (medium and heavy tank brigades), and of independent mechanized and armored car formations (brigades and corps).

In August 1938, all mechanized units and formations were transformed into tank units and formations. This entailed no substantial changes in their organizational structure. The new designation for armored units and formations reflected their main content more accurately than the old one. By the beginning of 1939, the armored forces comprised 4 tank corps, 24 independent light tank brigades, 4 heavy tank brigades, and a considerable

number of independent tank units organic to rifle and cavalry formations.⁴¹

Armored troops became firmly established as a component of the Ground Forces, becoming their main striking force. In 3 years (1936-38) the armored troops more than doubled in numerical strength.⁴²

Concomitantly with the materiel modernization program, improved special components were authorized for the Ground Forces. The numerical strength of High Command Reserve engineer units tripled.⁴³ A rifle regiment got an engineer company instead of an engineer platoon; a rifle division got a 2-company engineer battalion; and a rifle corps got a 3-company engineer battalion. Engineer units were included in formations of the armored forces: a tank brigade got a motorized engineer company; a tank corps got a motorized pontoon bridge battalion.

The signal troops also underwent changes. The signal companies of rifle divisions and corps, and of cavalry divisions and corps, were expanded to become signal battalions. Rifle regiments and cavalry regiments each got an independent signal company. Signal units were formed in units and formations of armored forces and artillery. Independent signal battalions and signal regiments were attached to higher Red Army staffs to improve communications and command and control.

By the end of the thirties, all units and formations in the rifle, cavalry, tank, and mechanized categories had an independent platoon or company for antichemical protection duties. Flamethrower tank battalions and brigades appeared in High Command Reserve chemical units.

The construction of fortified border regions proceeded on a grand scale. A belt of such regions was built from Lake Ladoga to the Black Sea. Soviet borders in the Far East were also secured.⁴⁴ The numerical strength of permanent garrisons in fortified regions increased by a factor of 7.5 during 1929-38.⁴⁵

Special machine gun battalions and machine gun-artillery battalions were created to defend fortified border regions. Their structure and composition were determined in each instance by the nature and size of the region. For example, a Type 1 fortified region was assigned a 5-company machine gun battalion with 35 machine guns.⁴⁶

The decade 1929-38 saw substantial qualitative and quantitative changes in the structure of the Ground Forces under the influence of technological progress. Rifle troops, while doubling their absolute numerical strength during the decade, dropped from 58 percent to 49 percent in relative strength. Cavalry gained in absolute numerical strength by a factor of 2.5 during the same period, accounting for more than 15 per-

cent of the Ground Forces at the end of the decade. High Command Reserve artillery and armored forces gained both relatively and absolutely. Their combined relative share of the Ground Forces increased from 3 percent to 10 percent during the decade.⁴⁷

There was also a change in the correlation between the numerical strength of the technical branches of troops (artillery, armor, engineers, signal troops, and so on) and of the infantry and cavalry. The proportion of technical troops in the Ground Forces rose from 21 percent in 1929 to 51 percent in 1938. In numbers of basic formations (divisions and brigades), the Ground Forces more than doubled during the same period. Of the total number of divisions and brigades, the proportion in the mobile category rose from 21 percent in 1929 to 41 percent in 1938. Half of these formations became tank or mechanized formations in the process.⁴⁸ On the whole, the Ground Forces gained significantly in mobility, maneuverability, striking power, and firepower during the decade.

An object of special concern for the Communist Party, the Soviet government, and the entire Soviet nation was the Red Army Air Force. Its buildup was based on the harmonious development of all its components, on the centralization of command and control, and on the creation of large air formations intended for massed use, either in coordinated action with the Ground Forces or for the accomplishment of independent missions.

In the spring of 1929, deployment was begun of homogeneous and mixed air brigades instead of independent squadrons of fighters, light bombers, and ground-attack aircraft. A typical mixed air brigade consisted of three squadrons: light bomber, ground-attack, and fighter.

On 23 March 1932, aware that aviation would play a role of constantly growing importance in future warfare, the Revolutionary Military Council of the USSR adopted the resolution "On Army Air Force Organizational Criteria," which set forth the philosophy on the development and employment of the RKKA Air Force. A direct consequence of the resolution was that in 1933 the 3-brigade air corps became the organizational entity for Long-Range Bomber Aviation. At the end of 1936, a number of air brigades were merged to form special purpose air armies to perform strategic missions.

In 1938, the basic tactical unit, the squadron, was reorganized and reduced in size from 32 to 12-15 aircraft. For better coordination between the various branches of aviation, as well as between aviation and ground forces, air regiments were formed for each branch of aviation; these regiments were merged to form air brigades of homogeneous or mixed composition. The air regiment became the basic tactical entity. Light bombers and ground-attack aircraft were marshaled into 5-squadron air

regiments, whereas fighters and heavy bombers were formed into 4-squadron regiments. The squadron consisted of 4-5 flights with 3 aircraft in each.

By the beginning of 1939, the Air Force included 3 air armies, 38 air brigades, and 115 air regiments.⁴⁹

The correlation of branches of aviation within the Air Force changed radically during 1929-38. The proportion of bomber aviation increased from 10 percent to 51 percent, while the proportion of reconnaissance aviation diminished from 80 percent to 10 percent. By the end of 1938, fighter aviation accounted for 39 percent of Air Force combat aviation.⁵⁰

The increase in the share of bomber and fighter aviation was a favorable phenomenon. However, the role of heavy and medium bombers was somewhat overestimated at this time. For example, more than half of the air formations in 1938 were heavy or medium bomber brigades, as against 13 percent and 7 percent for ground-attack formations and light bomber formations respectively. By and large, a great effort was made during these years to deploy all branches of aviation and to refine their organizational forms.

The Air Force's first experimental and demonstrational airborne assault exercises were conducted in the Moscow and Leningrad military districts during 1930-31. In December 1932, having generalized the results of these exercises, the Revolutionary Military Council of the USSR authorized the creation of four airborne motorized detachments, each of which included two parachute companies and a landing group (consisting of a T-27 tank company and a motorized company). The principles underlying the tactical and operational employment of such detachments were derived concurrently. Thus, the foundations were laid for a new branch: airborne troops.

Airborne detachments were merged to form airborne brigades. Six such brigades had been created by the beginning of 1938. The airborne brigade included a parachute battalion, a motorized and mechanized battalion, an artillery battalion, and an air group (two TB-3 squadrons and one R-5 squadron).⁵¹

The advent of airborne troops was an important event for strengthening national defense and developing the Armed Forces. New prospects opened up to conduct operations in depth, as airborne troops could promptly start combat actions in the enemy's deep rear, taking him by surprise and subjecting him to devastating blows.

As for defense against enemy air attack, at the end of the twenties and the beginning of the thirties the principal means at the disposal of the

National Air Defense Forces were air defense artillery and fighter aviation. They were supported by units of a special service for detection of enemy aircraft.

The National Air Defense Forces' acquisition of new materiel, together with a broadening of their commitment to protect the deep rear against enemy air attack, gave rise to changes in the national air defense administrative apparatus. In May 1932 the RKKA Staff's Air Defense Section, which had been in existence since 1927, was replaced by the RKKA Air Defense Directorate. The directorate was for all practical purposes entrusted with managing the air defense of the country as a whole. At the same time, similar directorates were created in military districts as well.

With the development of military aviation and the means of combating it, the National Air Defense Forces underwent a gradual transition from independent units to large formations.

During the first half of the thirties, the National Air Defense Forces consisted organizationally of independent air defense artillery battalions and regiments, machine gun battalions, and servicing units. From 1935 onward, air defense brigades and divisions were formed. To protect the most important targets against air attack, action was taken to create air defense corps, which included units and formations of all branches. Fighter aviation assigned to air defense was subordinated to the appropriate Air Force military district commander.

The development of the Soviet Navy was characterized by a search for the most advantageous organizational forms and for the most effective methods of utilizing all its components, both in combined operations with ground forces and in the performance of independent missions.

The Pacific Fleet was formed in 1932 to safeguard the Far Eastern boundaries. The Northern Fleet was created in 1933. In these same years, steps were taken to open up the northern sea route connecting the Northern and Pacific maritime theaters. By the outbreak of World War II, the Soviet Navy had 3 battleships, 4 cruisers, 40 leaders and destroyers, 184 submarines, 279 motor torpedo boats, and various other combat vessels."

Concomitantly with the strengthening of its logistical base, the Navy got an improved organizational structure. Detachments of warships were gradually replaced by formations capable of accomplishing combat missions independently in naval operations.

As an operational force, the Navy consisted organizationally of surface ship and submarine units and formations, naval aviation, and coastal artillery.

For light naval forces (submarines, motor torpedo boats, and so forth), the typical formation was the brigade, which consisted of several divisions. For example, a submarine brigade might contain 3 to 5 divisions with 6 to 9 submarines of the same class in each. Submarine formations were intended to disrupt sea communications independently and in coordinated action with surface warship and aviation.

The defense of the coastline and the protection of coastal shipping were entrusted to special naval forces, which consisted of surface warships, submarines, coastal defense artillery units, and naval aviation.

River and lake naval flotillas were increased in size. As a rule, such flotillas were divided into detachments. Such a detachment consisted of several vessels of the same kind: armored launches, monitors, escort launches, and so forth.

Naval aviation got bigger and stronger during the first two five-year plan periods. By 1937, it consisted of 1,215 combat aircraft, of which 36.5 percent were bombers (including torpedo bombers), 33.5 percent were fighters, and the remainder reconnaissance aircraft.

The Armed Forces' materiel modernization program required further improvement of their rear services. Such improvement was greatly advanced by a joint Central Committee-Council of People's Commissars resolution dated 9 August 1935 on the supply of rations and clothing. The resolution authorized a new supply chain: Moscow—military district—division—regiment—company—Red Army man." Inclusion of the division level in this chain permitted reduction of the number of supply entities directly from the military district, thus improving the supply of the troops. The quartermaster service was split into two independent services: food supply and clothing supply. The supply services for military technical stores, including fuels and lubricants, were completely redone. A central fuel supply directorate was created in 1936, as were affiliated fuel supply sections in military districts.

With the growth of the Red Army's motor transport inventory, the need arose for special motor transport administrative organs. Accordingly, motor transport sections were created in the General Staff and in military district staffs. In 1938, an independent motor transport service was segregated from the Red Army's military communications service. In the same year, aircraft parks were converted into aircraft bases.

Naval rear services were set up when the People's Commissariat for the Navy was formed. The Main Directorate for Naval Ports supplied the fleet with fuel and naval stores and managed motor transport services and auxiliary vessels. The supply of naval stores in other categories was arranged

by the appropriate supply directorates of the People's Commissariat for the Navy.

The increased mobility of the troops demanded greater mobility from rear service units and establishments. Mobile maintenance facilities appeared during 1932-38.

During the thirties, the Border Troops and Internal Troops were issued new small arms. In 1932, the Soviet government decided to give the Border Troops their own aviation, which improved their combat efficiency considerably. Many Border Troop units were issued motor vehicles. More and better engineer facilities were made available along the state borders.

The Main Directorate for Border and Internal Security was formed within the People's Commissariat for Internal Affairs in 1934 by a resolution from the Council of People's Commissars. The OGPU troops were renamed the Border and Internal Security Guard of the People's Commissariat for Internal Affairs (hereafter called the Border and Internal Troops).

With the formation of the All-Union People's Commissariat for Internal Affairs, the Central Executive Committee and the Council of People's Commissars adopted a joint resolution, dated 17 September 1934, transferring all escort troops to the People's Commissariat for Internal Affairs of the USSR. The Central Directorate for Escort Troops was disbanded.⁵⁴

Thus, in conformity with the demands of the Communist Party and the Soviet government, all services of the Soviet Armed Forces were radically restructured during the thirties. Their developmental system, structure, and organization were brought into line with advances in materiel and with the insights provided by Soviet military science into the probable nature of combat actions in a future war.

3. Raising the Level of Cadre Training. The Development of Military Theory and the Principles of Troop Training and Indoctrination

The need to raise the level of officer training and to improve administrative ability was dictated by the Army and Navy's rearmament and acquisition of modern weapons and combat equipment and by the creation of new branches and the modernization of existing ones. Many problems in tactics and operational art now presented themselves in new forms. Such a problem was the planning and direction of a contemporary engagement. The ability to solve such problems depended on possession of ad-

vanced tactical and technical training, especially by command personnel but ultimately by all supervisory personnel.

Recognizing the changed conditions under which the Soviet Armed Forces were developing, and aware of the missions assigned as part of the materiel modernization program, the VKP(b) Central Committee adopted a number of resolutions defining the ways military cadres should be strengthened and how their training should be improved.

Of particular importance was the Central Committee resolution, dated 5 June 1931, "On RKKA Command and Political Personnel." Having noted certain achievements in cadre training, the party's Central Committee also indicated that the technical knowledge possessed by supervisory personnel was unequal to the demands of the Armed Forces' materiel modernization program. The resolution stated: "The Central Committee considers a significant increase in the technical knowledge of supervisory personnel to be of immediate and decisive importance for further improvement of the Army's combat efficiency, and insists that such officers should strive for mastery of new materiel and familiarity with the complex forms of modern warfare." The resolution also called attention to the inculcation of great determination and high moral-political qualities, initiative, and tenacity, without which even a technically qualified chief would still not be a consummate leader of men.

Implementing the party's instructions, the Revolutionary Military Council of the USSR enacted a number of measures to improve command and supervisory personnel training and to expand and reorganize the network of higher and intermediate military educational institutions. An innovation was the creation of specialized institutions that permitted cadre training to take into account the level of materiel in the various services and branches and the specific features of their combat employment.

On 21 May 1932, the Defense Commission under the Council of People's Commissars of the USSR adopted a resolution founding the following specialized RKKA academies: the Military Academy for Mechanization and Motorization, the Artillery Academy, the Military Engineering Academy, the Chemical Warfare Academy, and the Military Electrical Engineering Academy. Also called for in the resolution was the establishment of the Military Transport Academy and the considerable expansion of the M. V. Frunze Military Academy and the Military Political Academy.

The Logistics Academy was founded in September 1935. The General Staff Academy was founded in 1936 to train high command cadres.

Meritorious Red Army commanders who had practical experience in leading men, but who lacked a higher military education, underwent

refresher courses that had been transformed into a special department at the M. V. Frunze Military Academy. These courses served as a model for similar courses introduced at other military academies to enable commanders and political officers of units and formations to improve their military knowledge.

By the end of 1938, the Soviet Armed Forces had 14 military academies and 6 military departments in civilian higher educational institutions.⁵⁶ The authorized strength of military academy trainees rose from 3,200 in 1929 to 20,000 by the end of 1938. Additionally, there was an enrollment of 15,000 in evening and correspondence courses.⁵⁷ There was also a change in the correlation between the number of students in command specialties and the number in technical specialties. Whereas in 1929 only 30 percent of military academy students were enrolled in engineering courses, the corresponding figure for 1938 exceeded 70 percent.⁵⁸

Besides being centers of learning, the military academies became centers of applied military research, inventing combat equipment and devising ways to use it most effectively. Between 1929 and 1937, the military academies and the military departments turned out about 10,000 commanders with a higher military and specialist education for the Armed Forces.⁵⁹

The network of intermediate military educational institutions was expanded. In 1936, 75 military schools (50 Ground Forces, 7 Navy, and 18 Air Force) were training intermediate command and supervisory personnel.⁶⁰

During the first two five-year plan periods, military institutions produced more than 140,000 commanders for all services of the Soviet Armed Forces.⁶¹

As in former years, the Central Committee was unstinting in its efforts to strengthen the party nucleus among military command and supervisory personnel. From 1930 onward, the trainees at aviation, naval, and armor schools were brought up to authorized strength with party and Young Communist League members drafted under special Central Committee resolutions. Local party organizations sent about 27,000 party and Young Communist League members to military technical institutions during 1931-35.⁶²

Party members accounted for 90-95 percent of higher and senior command and supervisory personnel. The proportion of party members in air, naval, and armored forces was great.

On 22 September 1935, the Central Executive Committee and the Council of People's Commissars of the USSR ratified a new statute on the terms

and conditions of service for RKKA command and supervisory personnel. The statute defined the terms of compulsory military service and set forth the proper procedures for promotion, appointment, and so on.

Personal military ranks were instituted: for Ground Forces and Air Force command personnel, lieutenant, senior lieutenant, captain, major, colonel, brigade commander, division commander, corps commander, army commander 2nd rank, and army commander 1st rank; for Navy command personnel, lieutenant, senior lieutenant, captain-lieutenant, captain 3rd rank, captain 2nd rank, captain 1st rank, flag officer 2nd rank, and flag officer 1st rank. Ranks were instituted for political officers of all branches: political instructor, senior political instructor, battalion commissar, regimental commissar, brigade commissar, divisional commissar, corps commissar, army commissar 2nd rank, and army commissar 1st rank. Ranks were also instituted for technical, administrative, medical, and veterinary personnel and for personnel specialized in military jurisprudence.

Rank insignia and new uniforms were introduced for all command and supervisory personnel.

In August 1937, additional ranks were instituted: junior lieutenant, junior political instructor, and junior technical officer.

The supreme military rank of Marshal of the Soviet Union was awarded for the first time, on 20 November 1935, to V. K. Blyukher, S. M. Budennyi, K. Ye. Voroshilov, A. I. Yegorov, and M. N. Tukhachevskiy.

The new statute on the terms and conditions of service for RKKA command and supervisory personnel defined more clearly the military and specialist qualifications of each chief and commander, while increasing their authority and their responsibility for the instruction and indoctrination of personnel.

The substantial changes in armament and military organization, both in the USSR and abroad, called for further advances in military thought. Many new problems arose in military organizational development that needed a theoretical basis and generalization.

It was of primary importance to reveal to what extent the development of military affairs would be reflected in the nature and features of future warfare, and to determine the roles and missions of the services and branches in such warfare. It was also important to work out the most effective ways of conducting armed conflict and the best methods for combat training and political indoctrination.

Soviet military doctrine developed under the Communist Party's guidance, deriving impetus from the concerted effort of Soviet military leaders and from the collective toil of the military academies and the central and military district directorates. The emergent theoretical tenets were tested and refined in command-and-staff training exercises and troop maneuvers.

Important contributions to military theory were made by outstanding commanders and military figures of the day, including M. N. Tukhachevskiy, A. I. Yegorov, B. M. Shaposhnikov, I. E. Yakir, I. P. Uborevich, V. K. Blyukher, A. I. Sedyakin, R. P. Eydeman, and I. F. Fed'ko.

Other Soviet authors whose works contributed notably to Soviet military theory may be divided into two categories: those who published works on general problems in the art of war; and those who dealt with the employment of the branches in engagements and operations. In the former category are A. A. Svechin, S. M. Belitskiy, A. M. Vol'pe, N. Ye. Varfolomeyev, Ye. A. Shilovskiy, V. A. Melikov, M. R. Galaktionov, V. K. Triandafillov, G. S. Isserson, and S. N. Krasil'nikov. In the latter category are S. G. Mikhaylov, V. D. Grendal', K. B. Kalinovskiy, S. N. Ammosov, A. Ye. Gromychenko, A. A. Ignat'yev, A. I. Shtromberg, Ye. V. Aleksandrov, D. M. Karbyshev, A. V. Kirpichnikov, and P. M. Kurochkin.

In determining the nature of a possible war, Soviet military theory proceeded from the premise that the USSR would be obliged to fight a coalition of imperialist powers with well-equipped and well-trained armed forces at their disposal. The war would be one of maneuver, requiring much combat equipment, primarily tanks and aircraft, and taxing the country's material and spiritual resources to the limit. Therefore, preparation for such a war should be undertaken in good time and in all seriousness. The military potential of the Soviet Union should be increased to the utmost, and the Army's equipment and combat training should be improved constantly.

Soviet military theoreticians realized that under then-present conditions, a war might be started without a formal declaration, thus utilizing the element of surprise. The introduction of new means of armed conflict had permitted important assumptions to be made about the character and significance of the initial period of a war. After making a special study of this question, M. N. Tukhachevskiy wrote in 1934 that the old ideas on troop deployment in a border encounter were no longer in accord with actual conditions or contemporary materiel. The border zone had become very vulnerable to attack by the enemy's aviation, mechanized troops, and airborne forces. The new nature of border encounters could cause disruption of mobilization and might prevent an army of millions from concentrating at the border.⁶¹

Soviet military thought defined and substantiated the role and missions of the services and branches in a future war. It justly refuted the one-sided bourgeois military theories that accorded a leading role to a particular technical mode of armed conflict or gambled on a blitzkrieg war. Soviet military theory proceeded from the premise that success in the operations of a future war would be attained by the combined efforts of all services and branches. The decisive offensive was considered to be the main form of military operations, and particular attention was paid to its theoretical treatment.

The latest technical resources demanded a review of old notions on engagements and operations. "Of course," noted M. N. Tukhachevskiy, "we cannot remain forever on the former level of our military thought . . . we cannot ignore the impact of the five-year plan on the theory of military affairs . . . nor can we fail to react to that plan with an appropriate restructuring of our theoretical military tenets. . . ."64

In the summer of 1932, the RKKA Staff presented the Revolutionary Military Council of the USSR with a collection of opinions entitled "The Tactics and Operational Art of the RKKA at the Beginning of the Thirties." The collection was dominated by the idea that in a future war it was important not to allow the enemy to form a continuous front, but to ensure that operations and engagements were characterized by maneuver. It was maintained that the best way to do this was to subject the enemy to blows of immense penetrating force throughout the entire depth of his formation. The collection noted the following: "At the present stage of the Red Army's organizational development, when the forces are fully equipped with the latest materiel and means of command and control, a whole series of tactical questions . . . are now seen in a completely new light.

"By virtue of their great power (aviation, reserve artillery), high speed (tanks, aviation), and long range, modern weapons make it possible to engage the enemy throughout the entire depth of his disposition at once. This is in contrast to the prevailing types of combat and attack, which might be described as sequential neutralization of successive parts of the enemy's battle formation."65 Special emphasis was placed on the idea that the simultaneous conduct of combat actions at great depth was the principal problem of the day, being central both to tactics and to operational art.66

The term "deep thrust" was understood to mean the simultaneous annihilation, neutralization, and containment not only of those defending troops supposed to repel a frontal attack but also of those stationed in the enemy's operational depth. Necessary conditions for the success of a deep thrust were mastery of the air and isolation of the battleground from the enemy's approaching reserves. The so-called "deep operation" consisted of two phases: a breakthrough of the enemy's tactical defense by the

joint efforts of infantry, tanks, artillery, and aviation; and exploitation of the tactical success at operational depth by committing formations of tanks, motorized infantry, and cavalry to the breach while landing airborne troops in the enemy's rear.

The principal component of a deep operation (conducted at the army or front level) was deemed the breakthrough of the enemy's tactical defense. The thirties were therefore a decade characterized by an especially intense quest for effective ways to use tanks, artillery, and aviation in offensive combat involving a breakthrough of the enemy's tactical defense zone.

The principles underlying the conduct of deep combat with massed use of tanks, artillery, aviation, and airborne troops found concrete expression in the RKKA Interim Field Service Regulations that went into effect on 30 December 1936 by order of the People's Commissariat for Defense. The regulations redefined the role and place of the branches in engagements and operations. The employment of each branch of troops was to be decided on its characteristics and strengths. It was emphasized that the infantry, in close coordination with artillery and tanks, would determine the outcome of an engagement by decisive actions when on the offensive, and by preserving the battle order when on the defensive. All branches, acting jointly with the infantry, were to accomplish their missions in its interests, ensuring its forward movement when on the offensive and its firmness when on the defensive.⁶⁷

It was planned that tanks would be echeloned in two groups: for direct support of infantry and for long-range action.⁶⁸ The massed use of tanks was considered an extremely important condition for success in engagements and operations: it was considered necessary to have 30 to 40 tanks per kilometer of breakthrough gap in the sector of the main thrust. It was planned that the advance of the infantry and tanks would be supported by artillery fire throughout the entire depth of their mission. The artillery density was increased to 140 guns per kilometer of front.⁶⁹

A breakthrough of the enemy's tactical defense was merely a partial solution to the overall problem of performing a deep operation. It was necessary to exploit the tactical success into operational depth. This was to be done by a powerful breakthrough exploitation echelon made up of tank, mechanized, and cavalry formations that would act swiftly and receive support from aviation and airborne forces.

The simultaneous neutralization of the enemy throughout the entire depth of his defensive position was analyzed most fully in the context of a front-wide offensive operation involving formidable artillery, aviation, and tank forces.

On the whole, the development of the deep offensive operation was an outstanding achievement of Soviet military thought in the thirties. It was a new theory, which consisted essentially in the simultaneous destruction of the opposing enemy grouping.

Having defined the offensive as the main and decisive form of combat, Soviet military theory nonetheless paid due attention to defensive warfare and especially to the organization and conduct of tactical defense. Such defense was regarded as a possible form of combat action for combined arms formations (up to the corps level, inclusive) primarily in secondary zones of the front to make forces available for an offensive in the main sector. The 1936 Interim Field Service Regulations made detailed recommendations on how defensive combat should be organized and conducted by ground troop units and formations, emphasizing that a defense must be capable of withstanding superior hostile forces attacking simultaneously throughout its entire depth, and stressing that a defense must be adequately echeloned and must be, above all, an antitank defense.

On the whole, the theory of tactical defense was fairly well elaborated during the period in question, particularly for the methods and means to be employed by defending units and formations. The theory of operational defense, on the other hand, was relatively neglected at this time.

The rapid improvement in the quality and availability of air materiel broadened the range of missions the Air Force could accomplish, and accordingly affected its employment. The newly issued aircraft had great range, considerable bomb capacity, and good accuracy in hitting targets. The latest contributions to the theory of applying air power were analyzed in the works of A. N. Lapchinskiy, V. V. Khripin, A. S. Algazin, and others. Among the topics treated by these authors was the use of air formations to attain operational and strategic goals. The theory on planning and conducting such combat actions was set forth in the 1936 RKKA Interim Field Service Regulations and in the 1936 Interim Instructions governing independent actions of the RKKA Air Force.

In a deep offensive operation, the main missions of combat aviation were to gain air supremacy; to cooperate with ground forces in the breakthrough of the enemy's tactical defense zone and in the exploitation of the breakthrough at operational depth; to cover friendly troops and rear installations against enemy air attack; to engage the enemy's approaching reserves; to secure the landing and support of airborne forces; and to conduct aerial reconnaissance.

In addition to missions accomplished in cooperation with ground forces, the Air Force was capable of performing independent air operations to annihilate the enemy's aircraft, destroy his military-industrial

centers, and disrupt his road, rail, and sea transport. Such operations were entrusted to heavy bomber formations of special purpose air armies.

The Navy's acquisition of new materiel, especially her modern submarines, motor torpedo boats, and airplanes, prompted the transition to a new naval tactic, that of coordinating heterogeneous naval forces to inflict a concentrated blow.

Among those who made a significant contribution to the theory of naval warfare were I. S. Isakov, A. P. Aleksandrov, V. A. Belli, Yu. A. Pantalejev, V. F. Chernyshev, A. V. Tomashevich, and A. M. Shuginin. Among the matters treated in their works were the problems of employing the various fleet components in naval operations.

Keeping in mind the Soviet Union's position as a continental power, and preparing for armed conflict with enemies possessing superior naval forces, the formulators of Soviet naval doctrine considered that the Navy must be ready to support ground troop operations in maritime sectors and to fight independent actions at sea.

Soviet naval doctrine presupposed a possible clash with a hostile fleet having a formidable battleship force. Neither in the Black Sea nor in the Baltic could the Soviet Navy match such a force, still less transcend it. The state of the Soviet economy still prevented a large-scale naval shipbuilding program.

The probable enemy's superior naval forces could be resisted realistically only by submarines, torpedo-armed destroyers, motor torpedo boats, and aircraft supported by an existing coastal defense system and minefields. These conditions engendered the so-called "small war" theory, which was the inevitable and logical culmination of a quest for ways to withstand a stronger naval adversary using the means at the Soviet Navy's disposal in the thirties. The tactic may be described as follows: when all available friendly forces had been placed in concealed positions to engage the main target from various directions, the enemy was subjected to short and sharp blows to defeat his superior forces in the given situation. According to this theory, the principal friendly forces were submarines, aviation, motor torpedo boats, and coastal artillery. The basic combat method was to be a concerted blow by heterogeneous forces. Great importance was attached to the effective coordination of such forces: surface warships of all types, submarines, aviation, and coastal artillery.

The basic principles for planning and fighting naval actions were set forth in the Interim Field Manual of RKKA Naval Forces, promulgated in 1937.

It was recommended that the limited friendly naval forces available deliver systematic short and sharp surprise blows in actions against the enemy's warships, shore installations, and sea communications in conjunction with extensive use of active mine obstacles.

Also contemplated for disrupting the enemy's strategic and operational shipments were independent operations against his sea communications by submarines, naval aviation, and surface warships. Systematic and sporadic combat actions by part of a fleet (or flotilla) were likewise considered expedient for providing direct support and cover for the flanks of ground troops fighting in maritime sectors or in lake and river regions.

Powerful artillery positions and defensive minefields were recommended for the protection of coastal communications, naval ports, and coastal ground troop concentrations and deployment areas.

Despite the emphasis placed on the development of naval aviation, it continued to be regarded as a supporting branch of the Navy. Meanwhile, capitalist naval experience was demonstrating that naval aviation could be expected to exert a strong influence on combat actions at sea. At just this stage in the development of naval doctrine, naval aviation was outgrowing its supporting role to become the Navy's striking force.

The findings of Soviet military thought were added to the foundation that existed for the instruction and indoctrination of personnel. During the years of the materiel modernization program, this instruction and indoctrination was largely occupied with mastery of the new materiel by Soviet servicemen. A greeting promulgated by the party's Central Committee on the fifteenth anniversary of the Red Army stated: "The blue-collar and white-collar workers, by dint of their efforts, have created the mighty socialist industry that underlies the defensive capability of the USSR. The workers are providing the Red Army with new and powerful military equipment.

"It is now up to you, comrades, to master this materiel, acquiring dexterity in handling the modern vehicles and weapons made by the workers of the USSR." This task was pursued stubbornly and persistently by technical, political, and command personnel, by political organs, by party and Young Communist League organizations, and by servicemen from all branches.

An extremely important factor promoting mastery of modern materiel was the improvement in the operational-tactical and technical training of command cadres and an upward trend in the educational level of enlisted personnel. By the mid-thirties, the Armed Forces were manned mainly by literate recruits, an appreciable proportion of whom possessed basic technical skills.

Wide use was made of command-and-staff and troop exercises. These exercises provided an opportunity for units to shake down and for the new organizational structure and new combat methods to be verified. The summer training period usually culminated in maneuvers involving all services and branches of the Armed Forces.

The biggest maneuvers were conducted in September 1935 in the Kiev Military District. They simulated penetration of the enemy's defense by a rifle corps reinforced with artillery and tanks, and exploitation of the breakthrough by mobile formations in coordinated action with airborne forces. More than 1,000 tanks participated in the maneuvers. On 14 September, 1,200 fully armed paratroopers were dropped in the "enemy's" rear, and when the airfield had been taken, it was used to land an airborne force of 2,600 men, 12 guns, 7 motor vehicles, and 3 tanks.

Foreign military specialists who attended the maneuvers had to concede the Red Army's leading role in the massed use of tanks, aircraft, and airborne troops, and in the mastery of new, complex forms of armed conflict. General Graziolini, head of the Italian Military Mission, wrote that "the Red Army is organized and equipped in a modern manner. . . ." General Loiseau, deputy chief of staff of the French Army, made the following assessment of the Red Army: "I . . . saw a strong, earnest army of extremely high quality in both materiel and morale.""

Summarizing the Red Army's combat training for 1935, the people's commissar for defense remarked, "Persistent work with cadres in recent years and the purposefulness of the combat training in 1935 have brought a favorable turning point in mastering the complexities of the contemporary art of war. The chiefs, staffs, and troops have largely mastered their materiel. . . ."

Large-scale maneuvers were held in the autumn of 1936 in the Belorussian Military District. They provided insights into conducting joint actions by rifle, cavalry, and mechanized formations with the support of aviation and airborne forces.

The methods for employing naval forces independently or in combined operations were verified by fleet exercises and maneuvers. Units and formations of the Northern, Baltic, Black Sea, and Pacific fleets simulated combat missions involving primarily the support of ground forces in maritime sectors.

The scope and results of combat training testified to the steady improvement in the military expertise of personnel in all categories and to the Red Army and Navy's transformation into a well-organized and well-trained composite force capable of meeting the demands of the contemporary art of war.

Improvement in combat training was inseparably linked with improvement in the political indoctrination work accomplished through the joint efforts of commanders, political workers, party organs, and Young Communist League organizations. Those in authority strove to complete combat training tasks successfully and to inculcate in their subordinates firm discipline, mastery of materiel, and concern for its maintenance. At that time, the content of political and military indoctrination was defined in 16th and 17th Party Congress decisions and in Central Committee plenary resolutions. The great merits of the Soviet social order and state regime were displayed by the profound changes in the people's way of life, by the decisive successes achieved in building socialism, and by the adoption of the new Constitution of the USSR. These circumstances broadened the civic awareness of the Soviet serviceman, heightened his sense of responsibility for the fate of the Motherland, inspired him with the spirit of the revolutionary, proletarian, and military traditions, and endowed him with a readiness to defend his people selflessly against the aggressive incursions of imperialism.

A leading role in the political indoctrination of military personnel was accorded by the Central Committee to military party organizations, whose activity was regarded as a model for all party-political work in the Army and Navy.

The third all-armed forces conference of party cell secretaries, held in May 1931, played an important role in motivating personnel to master new equipment and complex forms of contemporary combat. The conference noted that all party-political work must be brought to bear on problems in the Armed Forces' materiel modernization program."

In March 1934, the Central Committee ratified new instructions to party organizations in the Red Army. Regiments, independent units, and military establishments were to have primary party organizations, while company-level units were to have lower-level party organizations. Owing to this arrangement, party organizations were better able to influence the life, welfare, and training of personnel.

The intense political indoctrination work done by Army and Navy party organizations contributed to the growth of political activity among military personnel. The strength of military party organizations increased considerably during 1929-32. By the end of 1932, there were about 100,000 party members in the Armed Forces." The number of military party members diminished in the ensuing years. This was due to a party purge and to a suspension of admission to the party's ranks. Admissions to the party were resumed in November 1936. In mid-1937, the party's Central Committee decided to admit 20,000 servicemen into the party.

The military Young Communist League grew and developed under the guidance of party organizations. The number of Young Communist League members rose from 130,000 in 1928 to 405,600 by early 1937.⁷⁵

The 9th Plenary Session of the All-Union Lenin Young Communist League Central Committee, in March 1934, passed a resolution based on the decisions of the 17th Party Congress. In accordance with the resolution, Young Communist League cells were transformed into primary Young Communist League organizations (in regiments) and into lower-level Young Communist League organizations (in companies). The military Young Communist League functioned more efficiently when its organizational structure had been thus improved.

In March 1938, the Central Committee adopted a new resolution on Young Communist League organizations in the Red Army and Navy. This resolution helped to stimulate Young Communist League activity and to increase its numerical strength. The percentage of party and Young Communist League members in the Armed Forces increased steadily: in 1928 it was 31 percent; at the beginning of 1937, 38 percent; and by the end of 1938, 66 percent.⁷⁶

In May 1937, the VKP(b) Central Committee and the Council of People's Commissars of the USSR formally decided to reinstate the military commissar in all troop units and formations (starting at the regimental level), staffs, directorates, and military establishments. This step did not mean renunciation of the unity of command principle. It was a temporary measure dictated by the need to strengthen party leadership in the Army in connection with the materiel modernization program, as well as by the need to increase the fighting spirit of the Army's party organizations and to improve the quality of indoctrination work among personnel.

The posts of deputy political instructor and assistant political instructor were introduced in January 1938. They were filled by the best qualified Young Communist League members among the junior commanders. Their incumbents carried out mass political work with sections, crews, and batteries. The deputy political instructors constituted a reliable reserve of political workers.

An important role in political and combat training was played by the Army and Navy press, which conveyed the Communist Party's ideas to the mass of Soviet servicemen and cultivated in them an awareness of the need for vigilance and constant combat readiness. The military press generalized and popularized the latest advances in political and combat training, and it conducted a campaign to strengthen discipline and to implant strict conformity with regulations in all services of the Armed Forces.

There were three centrally published newspapers for the Armed Forces: *Krasnaya zvezda*, *Boevaya podgotovka* [Combat Training], and *Krasnyy flot* [Red Navy]. There were also 15 military district dailies and 4 fleet newspapers. Besides, large-circulation papers were published by troop formations, and pamphlets, leaflets, and posters were issued. In accordance with a Main Military Council resolution, large-scale publication of the "Red Army Man's Library" began at the end of 1938. Army and Navy personnel subscribed to 1,725,000 newspapers and 471,500 magazines.⁷⁷ The network of radio stations, libraries, and cinemas expanded considerably.

From year to year there was a broadening of the scope of the cultural and educational work performed in the Soviet Armed Forces by political organs and by party and Young Communist League organizations using the existing cultural and educational institutions: the Red Army Clubs, other clubs, libraries, and the Lenin Reading Rooms.

Every year thousands of demobilized servicemen left the Army or Navy with a good grounding in military, political, and cultural affairs. These men were solid supporters of the party in its endeavor to build socialism in the country.

During the years of the materiel modernization program, the measures taken by the Communist Party to strengthen the military's political organs and party organizations and to improve the forms and methods of party-political work ensured that Soviet servicemen would be inculcated with a spirit of selfless dedication to the Motherland and her people.

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The decade 1929-38 has gone down in the history of the Soviet Armed Forces as a period of radical improvement in materiel, a period which brought profound changes in the content and structure of all the branches and prompted new views on the nature of armed conflict and on methods of conducting it, as well as on other aspects of military affairs. By the end of the decade, the problem posed by the Communist Party and the Soviet government of providing the Armed Forces with modern materiel had been largely solved.

The rapid growth of military technology and the mass introduction of modern materiel into the services and branches of the Armed Forces increased their combat readiness, mobilization readiness, firepower, striking power, mobility, and maneuverability. The training and indoctrination of military cadres underwent substantial modification to ensure the mastery of technical skills and new military equipment.

Soviet military science made great progress during the years of the materiel modernization program. The necessary foundations were laid for further improvement in the combat efficiency of the Soviet Armed Forces.

Notes

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4. *CPSU in Resolutions*, V, 66-67.
5. *CPSU History*, IV, Bk. II, 387.
6. *Promyshlennost' SSSR. Statisticheskiy sbornik* [USSR Industry: A Statistical Compendium] (Moscow, 1957), p. 40.
7. *CPSU History*, IV, Bk. II, 442.
8. *World War II History*, I, 258.
9. *Ibid.*, 268.
10. *Ibid.*, 268, 269.
11. *The CPSU and the Organizational Development of the Soviet Armed Forces*, p. 172.
12. *World War II History*, I, 214; II, 191.
13. *World War II History*, I, 270.
14. *The CPSU and the Organizational Development of the Soviet Armed Forces*, p. 180.
15. *World War II History*, I, 214; II, 191.
16. *World War II History*, I, 270.
17. *Ibid.*, 214.
18. *Journal of Military History*, 1971, No. 2, p. 7.
19. *Fifty Years of the Armed Forces*, p. 202.
20. *Velikaya Otechestvennaya vojna Sovetskogo Soyuza 1941-1945. Kratkaya istoriya* [The Great Patriotic War of the Soviet Union 1941-45: A Short History], p. 42. [Hereafter cited as *Patriotic War Short History*—U.S. Ed.]
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22. *Army Archives*, f. 4, op. 1, d. 848, l. 118.
23. *World War II History*, I, 214.
24. *Journal of Military History*, 1971, No. 12, p. 7.
25. *Fifty Years of the Armed Forces*, p. 193.
26. *World War II History*, I, 270.
27. *Journal of Military History*, 1974, No. 10, p. 85.
28. Lenin, XXXI, 134.
29. *World War II History*, I, 270.
30. *Fifty Years of the Armed Forces*, p. 198.
31. *The CPSU and the Organizational Development of the Soviet Armed Forces*, p. 151.
32. *Pravda*, 21 June 1934.
33. *Army Archives*, f. 9, op. 1, d. 58, l. 30.
34. *World War II History*, II, 199.
35. N. F. Kuz'min, *Na strazhe mirnogo truda (1921-1940)* [Safeguarding Peaceful Toil (1921-40)] (Moscow, 1959), p. 174.
36. *World War II History*, II, 200.
37. *Army Archives*, f. 4, op. 1, d. 823, l. 40.
38. N. F. Kuz'min, *Na strazhe mirnogo truda (1921-1940)* [Safeguarding Peaceful Toil (1921-40)], pp. 175-76.
39. *World War II History*, I, 263.
40. *Journal of Military History*, 1968, No. 8, p. 106.

41. *World War II History*, II, 201.
42. Ibid.
43. *Army Archives*, f. 54, op. 4, d. 231, l. 330.
44. *World War II History*, I, 262.
45. *Army Archives*, f. 4, op. 2, d. 376, l. 3.
46. Ibid., l. 63.
47. *Army Archives*, f. 54, op. 4, d. 231, l. 330.
48. *Army Archives*, f. 4, op. 3, d. 2661, l. 2-10; op. 1, d. 826, l. 4-5; d. 376, l. 3; f. 54, op. 4, d. 113, l. 63.
49. *World War II History*, II, 201.
50. *Army Archives*, f. 4, op. 14, d. 73, l. 79.
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55. *CPSU on the Armed Forces*, p. 269.
56. *World War II History*, II, 205.
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68. Ibid., Clause 113.
69. *Boevoy ustav artillerii RKKA, ch. 2, 1937 (BUA-II-37)* [RKKA Artillery Field Manual, Part 2, 1937 (BUA-II-37)] (Moscow, 1937), Article 143.
70. As quoted in *World War II History*, I, 267.
71. As quoted in *World War II History*, II, 181.
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Chapter 7. The Soviet Armed Forces Before the Great Patriotic War

(January 1939-June 1941)

1. Strengthening National Security. More Materiel for the Armed Forces

In the spring of 1939, fascist Germany and Italy began aggressive actions in Europe. In March, violating existing agreements, Germany seized all Czechoslovakia. A month later Hitler's government abrogated the German-Polish Nonaggression Pact and, under the pretext of large-scale maneuvers, covertly began strategic deployment. Fascist Italy also became bolder. Seeing that her partner in aggression remained unpunished, Italy invaded Albania on 7 April. These events testified to the development of a prewar political crisis.

Japan hastened to exploit the strained situation in Europe. As early as the summer of 1938, she launched an armed attack in the Soviet Far East in the vicinity of Lake Khasan. Embarking on that adventure, the Japanese militarists hoped for quick success. The Japanese command counted on the difficulties inherent in the defense of the Soviet border in that region and on the remoteness of the nearest Red Army units. Nonetheless, the adventure proved a complete failure for the aggressors.

For the first time since the Civil War, the Soviet Armed Forces were obliged to conduct combat actions against a strong and experienced adversary. In the course of hostilities, the Soviet art of war was enriched with experience in the use of modern means of armed conflict, especially airplanes and tanks, which was of no little importance for further improving the Red Army.

The lesson of Lake Khasan remained unheeded by the aggressors. In May 1939, a large grouping of Japanese troops invaded the Mongolian People's Republic, traditionally friendly to the Soviet Union, in the Khalka River region. The Japanese militarists had counted on seizing a substantial segment of Mongolian territory, and then moving northward to the important trans-Siberian railroad, thus cutting off the Soviet Far East from the central regions of the country.

The Soviet Union, performing its international duty, came to the aid of the Mongolian People's Republic. The command element of the Soviet-Mongolian troops received the mission to prepare and conduct a large-scale offensive operation to smash the enemy that had invaded Mongolian territory. The army group formed to accomplish that mission numbered about 57,000 men, 498 tanks, 385 armored cars, 542 guns and mortars, and 515 aircraft.¹ The plan of the operation was to pin down the Japanese force from the front, then encircle and annihilate it by powerful thrusts on both flanks.

The remnants of the Japanese invading force on Mongolian soil had been mopped up by the end of August.

The crushing defeat of the Japanese militarists was of great military and political significance. Japan's international status had been compromised, and she was obliged to review her strategic plans. The Soviet Union, guided by the principles of proletarian solidarity, had rendered military aid to the Mongolian people in their campaign against the Japanese invaders. This was the first experience of joint combat actions conducted by the armies of two socialist states against an imperialist aggressor.

Striving to avert war in Europe, the Soviet Union sponsored many initiatives aimed at collective security against aggressors. However, all these initiatives invariably encountered overt or covert resistance from the ruling circles of Britain and France, who preferred to pursue a policy of isolating the USSR and directing aggression eastward. The United States of America fully supported Britain and France and continued to invest capital in German industry, thus increasing Hitler's war potential.

The Soviet government, no longer in doubt about the meaning or nature of Anglo-Franco-American policy, decided to accept Germany's offer of a nonaggression pact. Such a pact was concluded on 23 August 1939. This did not eliminate the threat of fascist aggression, but it did allow the Soviet Union to gain time, thus permitting preparation for defense and preventing the possibility of being drawn into a war on two fronts under highly adverse conditions. Additionally, the pact dashed the imperialists' hopes of creating a unified anti-Soviet front.

Meanwhile, the clouds of war darkened over the world. On 1 September 1939, fascist Germany attacked Poland, thus unleashing World War II. Britain and France, unable to make another deal with Hitler, declared war on Germany on 3 September 1939 but took no decisive action whatever. The Western powers persisted in their attempts to provoke Germany into a war against the Soviet Union, hoping to improve their own positions as the belligerents became weakened by the mutual bloodletting. However, the plans of the British and French ruling circles fell through once again. The fascist German troops promptly inflicted a defeat on Poland and then,

passing to the offensive against the British and French armies in the spring of 1940, occupied Belgium, Holland, and a large part of France. Denmark and Norway suffered a similar fate.

Masking her preparations for an attack on the Soviet Union, Hitler's Germany expanded her circle of allies during 1940 and early 1941, concluding military agreements with Finland, Romania, and Bulgaria. In the spring of 1941, the Hitlerites occupied Yugoslavia and Greece. Virtually all of Europe, with its economic power and its abundant natural and human resources, was now under the control of fascist Germany.

The fascist German troops' invasion of Poland created a dangerous situation at the western border of the Soviet Union. Accordingly, a training assembly of western contingents was conducted at the beginning of September 1939 in a number of military districts; the troops of the Kiev and Belorussian special military districts were brought to a state of combat readiness and were organized as the Ukrainian Front and the Belorussian Front. Meanwhile, Hitler's troops rapidly approached the eastern border of Poland. The peoples of Western Belorussia and the Western Ukraine, under Polish rule, faced the prospect of fascist enslavement. On 17 September 1939, at the order of the Soviet government, troops of the Ukrainian and Belorussian fronts crossed the Soviet-Polish border and took under their protection millions of Ukrainians and Belorussians, who were then reunited with their eastern brothers to form unified Ukrainian and Belorussian Soviet Socialist Republics.

In the autumn of 1939 the threat of fascist German invasion hung over the Baltic states of Latvia, Lithuania, and Estonia. The Soviet Union could not remain indifferent to the fate of the Baltic peoples. Nor could it permit these states to serve as a bridgehead for an attack on the USSR. Accordingly, the Soviet government offered to conclude mutual assistance pacts with the governments of Latvia, Lithuania, and Estonia, and in September-October 1939, such pacts were signed. The Soviet Union undertook to render all forms of aid to the Baltic states, including military. So that it could honor its obligations, the Soviet Union was accorded the right to station its troops on Baltic soil. However, the bourgeois-nationalist governments of the Baltic states, incited by the Western powers, began to violate the terms of the agreements, engaging in hostile activity against the USSR and against the Soviet garrisons stationed locally. The antipopular policies of these profascist governments outraged the workers of Latvia, Lithuania, and Estonia. This led to a revolutionary struggle waged by the workers of these countries under the guidance of their communist parties. As a result, the bourgeois governments were overthrown and replaced by popular authority, which turned to the Soviet Union with the request that the Baltic republics be admitted to the Union of Soviet Socialist Republics. In August 1940, the Supreme Soviet of the USSR granted that request. The family of Soviet republics was sup-

plemented by the Latvian, Lithuanian, and Estonian Soviet Socialist Republics.

Bessarabia, forcibly detached in 1918, was also reunited with the Soviet Union, as was Northern Bukovina.

Due to the aggressive political course adopted by the Finnish government, a very tense situation developed on the Karelian Isthmus. At the end of 1939, the imperialists managed to provoke Finnish reactionaries into a war against the USSR. Britain and France actively supported the reactionaries, supplied them with arms, and were even on the point of reinforcing them with troops. However, these plans were undone by the Finnish army's defeat. A peace treaty between Finland and the USSR was signed in Moscow on 12 March 1940.

The Soviet Union's consistent and determined position disrupted the imperialists' plans to seize advantageous staging areas for a war against the land of socialism. The state border was moved back from the key administrative and industrial centers in the European part of the USSR, thus improving the strategic situation.

While helping greatly to strengthen the country's security, these measures also gave rise to a number of important tasks in Army and Navy development. The Baltic Military District was formed, and the Red Banner Baltic Fleet received new bases. Work was begun on fortifying the state border of the USSR.

Recognizing the ever-growing military threat, and aware that the imperialist powers were gaining experience in the deployment and use of massive, well-equipped armies in World War II, the Communist Party Central Committee formulated an economic program that had as a primary aim the creation of a military-economic potential that could supply the Soviet Armed Forces with the weapons and equipment needed to wage war against a strong enemy. Of paramount importance for this was a sharp increase in the development of heavy industry. Directives issued by the 18th VKP(b) Congress on the 3rd Five-Year Plan (1938-42) for the development of the national economy provided for nearly twice the industrial output prescribed by the 2nd Five-Year Plan. The production of iron, steel, oil, and electric power was to be increased by 52 percent, 58 percent, 77 percent, and 106 percent respectively.²

The task assigned by the 18th VKP(b) Congress "to introduce modern technology into all sectors of the national economy and into all forms of national defense" was accomplished. During the first three and a half years of the 3rd Five-Year Plan, 2,900 new factories, mines, and other industrial enterprises were put into operation.

In the eastern regions of the country, capital investment in industry was increased considerably for defense production. The manufacture of materiel was done mainly in the northwest, center, and south of the European part of the USSR. Leningrad and Khar'kov contributed a substantial proportion of all Soviet-made tanks. The central regions of the country produced more than 75 percent of all Soviet-built combat aircraft. Tula was a leader in small-arms production. The development of a new war industry base in the Volga River region, the Urals, and in Siberia, beyond the reach of hostile aircraft from either the West or the Orient, was of great defensive significance.

The expansion of materiel production made it necessary to restructure the administration of the defense industry. In January 1939, the Central Committee decided to divide the People's Commissariat for the Defense Industry into four smaller commissariats for the aircraft, shipbuilding, armament, and munitions industries. This made the external direction and internal management of enterprises more efficient.

Special importance was attached to developing the aircraft industry. In September 1939, the VKP(b) Central Committee Politburo passed a resolution on the reconstruction of existing aircraft plants and the building of new ones. Nine in each category were planned for 1940-41, primarily in the Volga River region. The resolution "On the Development of Aircraft Engine Plants" had been passed somewhat earlier. The productive capacity of the Soviet aircraft industry was to almost double.

The Communist Party displayed great concern for the development of the tank industry. In June 1940, it was decided to undertake tank production at the Chelyabinsk tractor plant. Other large enterprises, including the Stalingrad tractor plant, were requisitioned for the same purpose.

Owing to the steps taken, the defense industry developed much more rapidly than the other sectors of the national economy. For example, whereas the output of Soviet industry as a whole increased by 16 percent during 1939, that of the defense industry increased by 46.5 percent. During 1940, the output of the defense industry increased by more than a third. From 1938 until June 1941, capital investments in the defense industry amounted to more than 25 percent of those for Soviet industry as a whole.⁴

Factories and plants newly built to manufacture nonmilitary commodities were designed so that they could be converted to defense production if needed. Specifically, locomotive, automobile, and tractor plants were built with tank production in mind, as were shipyards. Other factories of the heavy-engineering sector had armament or ammunition as their alternate product. All large industrial enterprises had mobilization plans to be implemented in the event of hostilities. In view of the outbreak of

World War II, a trial partial mobilization of Soviet industry was conducted in September 1939. That exercise pointed the way for further improvement of the industrial war mobilization procedure.

The growing threat of war demanded more rapid replacement of materiel and an accelerated defense production rate. The Communist Party and the Soviet government assigned the task of raising the Red Army's technical level to a new level, designing and mass-producing modern models of weapons and combat equipment.

Development work on the Tokarev semiautomatic rifle was already in progress during the prewar years. In April 1940, a modernized version of that rifle (SVT-40) was adopted for the troops and planning was begun for its production.

A modernized Maxim heavy machine gun went into service in June 1941. The principal submachine gun was still the Degtyarev, whose combat characteristics had been improved considerably.

In January 1940, the Degtyarev submachine gun was replaced by the Shpagin submachine gun (PPSh), and the series production of the latter was organized. The first large batch of these automatic weapons, more than 100,000, was forthcoming by the summer of 1941.⁵

Besides these basic types of small arms, a heavy (12.7mm) machine gun entered service. It proved extremely effective against light armored cars and low-flying aircraft. However, its factory trials and service trials dragged on too long, so that these weapons were in short supply before the war.

Several experimental models of antitank rifles were under consideration in 1939. The Rukovishnikov antitank rifle was accepted for service in October of that year but was never mass produced. This was due in part to technological difficulties and to a certain tendency to underestimate the role of the antitank rifle in combating the enemy's armor. The number of antitank rifles produced in 1939 and 1940 was 50 and 15,000 respectively.⁶

Small-arms production rose considerably just before the Great Patriotic War. Merely in the two and a half years from January 1939 until June 1941, 105,000 machine guns of various types entered service.⁷ This was as many as during the previous 10 to 12 years.

The state of small-arms production and supply to the troops was investigated by a special commission under the VKP(b) Central Committee and the Council of People's Commissars of the USSR. Although the commission's report was, on the whole, favorable on the quality of the weapons, it noted shortcomings in providing mobilization stockpiles and in organizing the mass production of submachine guns.

There were two distinct trends in artillery development. Steps were taken to improve the combat capabilities of available guns (range, accuracy, rate of fire, and the destructive force of shells). Additionally, new artillery systems were created and put into service: a 76mm divisional cannon, a 122mm divisional howitzer, a 122mm corps cannon, a 152mm howitzer, the BR-19 152mm cannon, the BR-5 280mm mortar, and a 305mm howitzer.

A modernized 76mm air defense gun was adopted for service in October 1939, soon to be followed by an 85mm model. During 1939-40, the troops began to receive automatic 25mm and 37mm air defense guns.

The combat experience of 1939-40 proved the effectiveness of mortar armament, especially in actions on rugged terrain affording concealment. While artillery and mortar armament was being improved, its production rate increased. From [January] 1939 to June 1941, the defense industry produced 82,000 guns and mortars of all calibers, including 36,660 50mm mortars.⁸ As of 1 September 1939, the troops had 34,200 guns and mortars. By the beginning of the Great Patriotic War, the Red Army had 91,493 artillery guns and mortars of various calibers.⁹

The growth of motorization and mechanization in the Ground Forces, and especially the rapid increase in the number of motorized and mechanized units and formations, made self-propelled artillery essential for supporting combat actions by mobile troops. As early as the first half of the thirties, the necessary technology existed for the production of such artillery. However, among the Soviet Army's top-ranking personnel were those who opposed the use of self-propelled artillery on the argument that its function could be performed satisfactorily by tanks. Accordingly, progress in the development of self-propelled artillery during 1937-39 was limited to a few experimental models.

Meanwhile, self-propelled artillery was being developed actively abroad, especially in Germany. In 1939, the Wehrmacht got a 75mm self-propelled gun that was widely used during the initial period of World War II.

Before the war, Soviet designers and engineers developed artillery ammunition for various applications and began its mass production. Artillery units started to receive improved equipment for observation, fire control, and topogeodesic support. All this permitted the artillery and mortar armament to be used more effectively.

Theoretical and experimental research on rocket armament culminated in the creation of a new weapon: field rocket artillery. A multiple rocket launcher, later named the BM-13 and nicknamed "Katyusha," proved itself during trials. In June 1941, the decision was made to put the BM-13

rocket launcher and the M-13 rocket shell into series production and to form rocket artillery units.

Soviet armor underwent substantial changes during the prewar years. The development of antitank artillery and other antitank weapons demanded improvement of the armor protection and firepower of Soviet tanks, particularly of medium and heavy models.

In August 1938, the VKP(b) Central Committee held a conference on tank construction. It was attended by members of the Politburo, military leaders, designers, and workers in the tank industry. The consensus was that an approach should be adopted in tank design to produce models that would most fully meet the demands of modern warfare.

In December 1939, when the prototypes of the A-20, T-32, SMK, T-100, and KV-1 tanks had been tested, the KV-1 heavy tank and the T-34* medium tank were adopted. These tanks constituted a qualitative step forward in Soviet tank technology and marked a new trend in world tank construction. Both the medium and the heavy tank featured the most rational combination of firepower, armor, and mobility.

The T-34 medium tank, designed by M. I. Koshkin, A. A. Morozov, and N. A. Kucherenko, featured high maneuverability, adequate armor protection, and powerful armament. It had a combat weight of 26.5 tons, an armor thickness of 45 to 52mm, a top speed of 55 km/h, and an armament of one 76mm cannon and three machine guns.

The KV-1 heavy tank, designed by Zh. Ya. Kotin, weighed 47.5 tons, had an armor thickness of 75-100mm, and developed a top speed of 35 km/h. It was armed with one 76mm cannon and three machine guns.¹⁰

For the first time, tanks were fitted with diesel engines, which had an indisputable advantage over carburetored gasoline engines. The new tanks had other great merits: their design met large-scale production requirements; and they could be repaired under field conditions.

Without cutting back on the output of the light T-26 and BT tanks, the Soviet tank industry began to reorganize to produce the newly adopted medium and heavy tanks in the spring of 1940. One hundred and fifteen of the medium T-34 tanks and 246 of the heavy KV tanks were manufactured that year. Production of the new tanks then rose sharply, the corresponding figures for the first 6 months of 1941 being 1,110 and 393 respectively.¹¹ Altogether, during the 2½ years before the war, 1,861 new tanks were put into service.¹²

*The T-34 tank had no prototype.

Assessing the state of Soviet tank strength on the eve of the Great Patriotic War, it should be kept in mind that 50 percent of the light tanks were of 1931-35 vintage. These tanks were badly worn, and their overhaul before the outbreak of the war proved impracticable.

New armored cars with increased cross-country capability were designed and produced during the prewar years. The armored car inventory almost doubled from 1939 to 1940.

Special attention was paid to providing the Army with motor transport and mechanical traction. Among the vehicles issued during 1939-40 were the GAZ-AAA 3-axle cargo truck, the GAZ-21 3-axle cargo and personnel carrier, and the GAZ-60, ZIS-22, and ZIS-33 half-track cargo trucks. Also forthcoming during the same period was an artillery prime mover markedly superior to former means of mechanical traction. Between 1938 and 1940, the motorization of the troops increased by a factor of 1.5 and 2.5 for tractors and motor vehicles respectively.

In 1939, the RAF radio was developed and adopted for use at the army and front levels. The RSB was introduced for the corps-army level, and the RB radio was issued for use in divisional and regimental radio networks. However, requirements for authorized new communications equipment were not fully met when the war broke out. The troops were short of radio sets, high frequency telephone equipment, telegraph equipment, field cable, batteries, and battery chargers.

The trend in the development of engineer materiel was toward improvement of the entire range of equipment needed for engineer support of the troops. Adopted in 1939 was the special SP-19 pontoon outfit, intended for the bridge-crossing or ferry-crossing of a wide, fast-flowing river. The RMM-2 and RMM-4 collapsible metal bridges were developed not long before the war, as were several new types of roadbuilding machines. An ingenious bridgelaying device attached to a tank's chassis enabled tanks to surmount antitank ditches.

As a result of the steps taken to reequip the Air Force, air materiel reached an unprecedented level of excellence.

During 1939-40, the Central Aero-Hydrodynamics Institute was reorganized, new bureaus for the design of military aircraft were formed, and an institute specializing in flight research was founded.

An extensive design program backed up by experimental work and testing resulted in the creation of new combat aircraft, among which the following were selected for mass production: A.S. Yakovlev's Yak-1, A. I. Mikoyan and M. I. Gurevich's MiG-3, and M. I. Gudkov's

LaGG-3 fighters; S. V. Il'yushin's Il-2 ground-attack aircraft; and V. M. Petlyakov's Pe-2 bomber.

In performance specifications these aircraft were typical of the period. The fighters had a top speed of 550 km/h (LaGG-3) to 620 km/h (MiG-3), and a range of 560 km to 1000 km. They were armed with a 20mm cannon and one or two 7.62mm or 12.7mm machine guns. Their bomb capacity was 200 kg.

Despite its comparatively great weight (5.3 tons), the Il-2 ground-attack aircraft was very maneuverable. The crew, engine, and fuel tank were all well protected by armor. The aircraft was armed with two 20mm cannons, eight rockets, and two 7.62mm machine guns. Its bomb load was 600 kg.

The Pe-2 bomber had a top speed of 540 km/h, was armed with two 7.62mm machine guns, and carried as much as 1,000 kg of bombs.

However, the new aircraft began to be delivered to the Air Force not long before the outbreak of the Great Patriotic War. Only 64 Yak-1 fighters, 20 MiG-3 fighters, and 2 Pe-2 dive bombers were produced in 1940. During the first half of 1941, 1,946 Yak-1, MiG-3, and LaGG-3 fighters, 249 Il-2 ground-attack aircraft, and 458 Pe-2 bombers were built.¹³ Altogether, there were 2,739 new aircraft in the Air Force.¹⁴

The Soviet Navy underwent further development. On the eve of the Great Patriotic War, it had 276 top-line vessels, which included 3 battleships, 7 cruisers, 54 leaders and destroyers, 212 submarines, and 287 motor torpedo boats. Naval aviation numbered 2,581 serviceable aircraft.¹⁵

Thus, by the beginning of the Great Patriotic War, the degree to which Soviet troops were equipped with modern materiel had improved significantly. The defense industry of the USSR, supported by a potent heavy industry, greatly increased the output of modern weapons and combat equipment. Nonetheless, the Armed Forces' materiel modernization program was not fully implemented before the outbreak of the Great Patriotic War.

2. Reorganizing the Armed Forces

The growing threat of war placed great new demands on troop training and organization. Deciding how best to strengthen the Armed Forces organizationally, the Communist Party and the Soviet government strove to ensure their systematic and proportional development as well as their capacity for rapid mobilizational deployment to repulse imperialist aggression. Substantial changes were made to the structure and work methods of the central military administration.

The need to strengthen the Soviet Armed Forces was conclusively substantiated in decisions promulgated by the 18th VKP(b) Congress and by the 18th Party Conference, as well as in resolutions passed by the Central Committee on military questions.

Civil and military authorities participating in the formulation of measures aimed at improving the organization and training of the Soviet Armed Forces included Politburo members, Central Committee secretaries, eminent government and party figures, heads of the People's Commissariat for Defense, military district commanders, fleet flag officers, and top political workers.

The essential concerns in the organizational development of the Armed Forces of the USSR at that time centered on increasing the numerical strength of the troops and drawing up plans for their deployment. On Soviet territory there were 16 military districts and 1 front—the Far Eastern Front. The Soviet Navy consisted of 4 fleets (Northern, Baltic, Black Sea, and Pacific) and 5 flotillas.

Military development generally, and the organizational development of the Armed Forces in particular, were managed, as formerly, by a special organ of the Council of People's Commissars of the USSR—the Defense Committee—headed in May 1940 by K. Ye. Voroshilov. The deputy chairman of the Council of People's Commissars, the people's commissar for defense, and the people's commissar for the Navy were all members of the Defense Committee, as were the people's commissars for the defense sectors of industry.

Direct control of the Armed Forces was under the people's commissar for defense and the people's commissar for the Navy. The Main Military Council for the RKKA and the Main Military Council for the Navy functioned as collegial organs under their respective chairmen. Flag Officer 1st Rank N. G. Kuznetsov became people's commissar for the Navy in April 1939, and Marshal of the Soviet Union S. K. Timoshenko became people's commissar for defense in May 1940.

The structural reform of the central administrative apparatus was to be undertaken to ensure strict demarcation of functions; elimination of unnecessary levels in the hierarchy; stronger centralization within the services and branches of the Armed Forces; involvement of the Army's directing nucleus in the solution of specific problems; and maximum adaptation of the command and control apparatus to wartime conditions.

Resolutions on the main and central directorates of the People's Commissariat for Defense were ratified at the beginning of 1941. The chief of a directorate was made responsible for the training of a certain branch, for its timely supply with materiel, for improvement of its weapons and com-

bat equipment, and for the employment of its cadres. An inspection service was instituted for each branch and headed by an inspector general.

The apportionment of responsibility within the People's Commissariat for Defense was made more precise by a resolution promulgated on 8 March 1941 by the party and government. According to that resolution, the People's Commissariat for Defense's direction of the Army was to be carried out through the General Staff, its deputies, and a system of directorates.

All operational, mobilizational, and organizational work was concentrated in the General Staff, whose structure was modified to permit the Armed Forces to be brought promptly to a state of immediate readiness to repel aggression. The principal sections of the General Staff were transformed into directorates. By the beginning of 1941, there were eight such directorates, dealing with operations, intelligence, organization, mobilization, military communications, rear services and supply, manning, and military topography. The General Staff also had four sections: one without portfolio, and three devoted to cadres, fortified regions, and military history.

The growing volume of administrative work entailed an increase in the numerical strength of the central apparatus, which almost doubled between January 1938 and January 1941. In the spring of 1939, the VKP(b) Central Committee decreed that, to improve the management of local military administrative organs and the work of territorial party organizations in defense matters, each rural district committee, municipal committee, regional committee, and territorial committee should have a military section. Moreover, the VKP(b) Central Committee decided that its counterpart in each union republic should also have a military section. This decision was consolidated in the party rules ratified by the 18th VKP(b) Congress.

The Universal Military Service Law was passed by the Supreme Soviet of the USSR on 1 September 1939. With the enactment of that law, the transition of the Soviet Armed Forces to a regular footing was juridically completed. The law abolished all class restrictions on eligibility for active military service. Laid down in the new law were the procedures for premilitary training, initial training, and recruitment as well as the terms of active and reserve service. For enlisted men, the active service term was increased to 3 years in the Army or Air Force and to 5 years in the Navy. The new law prescribed the nationwide call-up age as 19, with the stipulation that secondary-school graduates could be conscripted at 18 years of age.

To maintain a high level of reserve training and to ensure mastery of military equipment by reserve cadres, it was decided to increase the time

served by reserve personnel in training assemblies as follows: private soldiers to 1½ years, NCOs to 2 years, and officers to 3 years.

Deployment of the Soviet Armed Forces was begun in the autumn of 1939. By the middle of 1941, their strength had passed 5 million men, exceeding the 1939 figure by a factor of 2.8.¹⁶

A complex and crucial problem of military development was determination of the optimal correlation between the numerical strengths of the services of the Armed Forces. In solving this problem, recognition had to be taken of the specific conditions of the prewar period, especially, the development of the means of armed conflict, the country's geographical location, and the features of the armed forces of probable enemies.

At the time, Germany and Japan had large land armies, which meant that the decisive events would unfold on the land fronts. However, these probable enemies also had substantial naval and air forces. These circumstances, taken into account with the aforementioned factors, were reflected in the organizational development of the Soviet Armed Forces and, in particular, in the correlation of the numerical strengths of the Ground Forces, Navy, Air Force, and National Air Defense Forces (table 4).

Table 4. Correlation of the Relative Numerical Strengths of the Services of the Soviet Armed Forces.¹⁷

Service	Sept 1939	June 1941
Ground Forces	74.5%	79.3%
Air Force	10.9	11.5
Navy	10.7	5.8
National Air Defense Forces	3.9	3.4

The initial campaigns of World War II showed that Soviet military science had been correct about the preeminent role of the Ground Forces in modern warfare. Specifically, these campaigns validated the principles derived in the Soviet Union during the thirties on the organizational development of such forces: that the Ground Forces should include large mechanized and tank formations; and that all branches, especially infantry and artillery, should be highly mobile. The campaigns confirmed Soviet predictions that motorization and mechanization would play a major role in ensuring advances in the combat capability, mobility, and maneuverability of land armies. Improvements to the structure and organization of the Ground Forces during the prewar years were made in conformity with these trends.

Special attention was paid to improving the organization already authorized for the rifle division. This matter was widely discussed among

top-ranking personnel. In September 1939, the People's Commissariat for Defense ratified an amended table of organization and equipment for a wartime rifle division with a strength of 18,000 men. Innovations included a second artillery regiment, an independent antitank artillery battalion, and provision for strengthening rifle units with mortars and antitank weapons. Also planned was the complete equipping of the division with automatic small arms, artillery (antitank, air defense, and field guns), and transport (motor vehicles and means of traction), which increased the division's firepower and maneuverability. Top-line rifle divisions also got tank units.

The rifle division's authorized organizational structure was further improved during 1939-40 Red Army combat actions and 1940-41 troop exercises. In April 1941, yet another table of organization and equipment was ratified for the rifle division. It included five regiments (three rifle and one artillery), two independent artillery battalions (one antitank and one air defense), and five other independent battalions (reconnaissance, signal, engineer, motor transport, and medical). The division was to have 14,483 men, 10,420 rifles, 1,204 submachine guns, 558 machine guns, 210 guns and motors (not counting 50mm), 16 light tanks, 13 armored cars, 558 motor vehicles, and more than 3,000 horses.¹⁹

In comparison with the 1939 rifle division, the April 1941 version had 23.3 percent fewer men and 51 percent fewer horses.

The reductions in numerical strength and horse-drawn trains, and the increases in automatic small arms and artillery (gun and mortar) armament, increased the rifle division's firepower and maneuverability.

Under peacetime conditions, rifle troops were manned on a reduced scale with varying degrees of mobilization readiness. At the beginning of 1939 the top-line rifle divisions, stationed in border military districts, were maintained at a strength of 6,959 men, whereas their counterparts in internal military districts had an authorized strength of 5,220 men.¹⁹

Rifle troops stationed in the Far East had a special status. The tenseness of the situation in this region demanded that rifle formations be maintained at a strength close to the wartime level.

The highest tactical formation of rifle troops was still the rifle corps. It consisted of three rifle divisions, two corps artillery regiments, an air defense artillery battalion, an engineer battalion, and a signal battalion.

New in the organizational development of the Ground Forces was the operational field force: the combined arms army. It consisted of 2-3 rifle corps, a mechanized corps (in border military districts), air formations, and special troop units. At the beginning of the war there were 14 army

administrations in western military districts (3 of which were in the formative stage) and 6 in the Far East.

Improvement of the mobilization and combat readiness of the rifle troops found tangible expression in the emergence of new rifle divisions and a gradual transition by units and formations to the wartime levels of men, weapons, and equipment.

The war found the rifle troops in the throes of deployment and in the midst of their transition to the wartime establishment. In border military districts, most divisions were manned to a mere 60-85 percent of their authorized strength (8,500 to 12,000 men).²⁰ The majority of rifle divisions in internal military districts were still in the formative stage. Rifle divisions in the western border military districts had only about 50 percent of the number of motor vehicles and tractors authorized. It was intended to meet the shortage by requisitioning these items from the national economy with the onset of mobilization (or even as late as the outbreak of hostilities).

Combat actions in Poland and France showed that cavalry had lost its former importance. The decisive role in land operations now belonged to motorized and tank formations in coordinated action with infantry, artillery, and aviation. This bode ill for Soviet cavalry, which in any case had been drastically reduced during the prewar years. Many of its formations served as a basis for the deployment of armored units. By the beginning of the Great Patriotic War, all that remained of cavalry in the Ground Forces were 13 divisions (4 of them mountain) and 4 corps administrations.²¹

Soviet artillery was a formidable force. It surpassed its German counterpart qualitatively but lacked sufficient mechanical traction. Requirements for special artillery prime movers were only 20.5 percent met.²² Agricultural tractors were used as prime movers, but there were not enough of them. In artillery units belonging to rifle formations, as many as half the guns were horse-drawn, which reduced the maneuverability of organic artillery considerably.

In artillery development, emphasis was placed on organizational forms that would ensure convenience of command and control in the accomplishment of combat missions.

At the end of 1939, a rifle regiment got an antitank battery (six 45mm guns) and a mortar platoon (four 120mm mortars); while a rifle battalion got an antitank platoon (two 45mm guns) and a mortar platoon (four 82mm mortars). In the summer of 1940, the rifle regiment's mortar platoon was transformed into a mortar battery (four 120mm mortars), and the rifle battalion's mortar platoon was transformed into a mortar company (six 82mm mortars).²³

In September 1939, the rifle division got a second artillery regiment, and in April 1941 it was reinforced with antitank and air defense artillery.

Tables of organization and equipment were authorized for corps artillery regiments: one such regiment had 36 guns (107mm cannons and 152mm howitzers), while the other had 30 guns (152mm howitzers and gun-howitzers). The corps got an air defense artillery battalion (eighteen 76mm cannons).²⁴

By the beginning of 1941, there were 1,382 37mm air defense guns in service, as compared with the nearly 5,000 authorized. Many combined arms and tank units and formations were completely without air defense guns.

The firepower of High Command Reserve artillery was increased by increasing the number of guns and by introducing new systems. The cannon regiments, which had 107mm guns, were rearmed with 122mm guns. Both the cannon regiments and the howitzer regiments, which had been 3-battalion regiments, became 4-battalion regiments, with three 4-gun batteries in each battalion. Some of the howitzer regiments were armed with 48 152mm gun-howitzers; others, the greater part, were armed with 24 203mm howitzers.

Besides regiments, High Command Reserve artillery had independent extra-powerful artillery battalions and mortar battalions. The composition of the artillery battalions remained unchanged (three 2-gun batteries in each), but their materiel was almost completely renewed and consisted of 210mm cannons, 280mm howitzers, and 305mm howitzers. The mortar battalion consisted of four companies with 12 120mm mortars in each.

Special artillery groupings were created to combat tanks. Antitank artillery brigades began formation under a People's Commissariat for Defense order dated 26 April 1941. Such a brigade contained two artillery regiments, an engineer battalion skilled in minelaying, and a number of servicing units. Altogether, the brigade was allowed 48 76mm antitank cannons, 24 107mm cannons, 24 85mm air defense guns for use as anti-tank weapons, and 16 37mm air defense guns.²⁵

By the beginning of the Great Patriotic War, High Command Reserve artillery included 74 artillery regiments (60 howitzer regiments and 14 cannon regiments), 10 antitank artillery brigades still in the formative stage, several independent artillery battalions, and several independent mortar battalions.²⁶

At the end of 1939, the RKKA Main Military Council introduced a standard organization for tank formations. The High Command Reserve tank brigade consisted of 4 battalions with 258 combat vehicles, including T-26

and BT light tanks pending their replacement by T-34 medium tanks. Brigades armed with T-28 and T-35 tanks were to be equipped with KV tanks. These brigades consisted of 3 battalions with 156 combat vehicles (including 39 BT tanks). Four tank corps administrations were slated for disbandment. A peacetime establishment of 32 tank brigades was contemplated, in addition to 10 independent tank regiments that could be expanded into brigades in the event of hostilities.

The Ground Forces got a new formation: the motorized division. It consisted of two motorized rifle regiments, one tank regiment, one artillery regiment, and units for logistical support. The motorized division was to have 257 tanks, 73 armored cars, and about 100 guns and mortars. The creation of 15 such formations was contemplated, 8 of them in 1940.²⁷

The restructuring of the armored forces was effectively finished by the spring of 1940. Under the circumstances, the decision made by the RKKA Main Military Council to reorganize the armored forces was a timely and expedient measure designed to increase the combat efficiency and combat readiness of the Ground Forces as a whole. Although the elimination of the corps level was not the best decision, the adopted organization nonetheless met the requirements of the massed use of tanks and was in accord with accrued experience in the organizational development of tank formations. The Ground Forces still had quite powerful tank and motorized formations (brigades and divisions) equipped with 250 to 260 combat vehicles. Those formations, either individually or in various combinations, were capable of accomplishing any mission in a deep offensive operation.

In June 1940, the People's Commissariat for Defense once again reviewed the organization of armored forces, this time in light of experience gained in the war in Western Europe. It was decided to reinstate the mechanized corps in the armored forces as a means of carrying out a decisive maneuver. Accordingly, the Red Army's General Staff formulated an organizational structure for the mechanized corps, and that structure was ratified in July 1940.

The newly authorized mechanized corps consisted of two tank divisions and one motorized division, a motorcycle regiment, an independent signal battalion, an independent engineer battalion, and an air squadron. According to its wartime table of organization and equipment, the mechanized corps was to have more than 36,000 men; 1,031 tanks, 546 of which were to be new KV or T-34 tanks; 358 guns and mortars; and 268 armored cars.²⁸

In mid-July 1940, the General Staff formulated a new plan to create eight mechanized corps and train them to accomplish combat missions. Besides, the General Staff called for two independent tank divisions.²⁹

In February 1941, when work on the new mechanized corps was approaching completion, the General Staff made a substantial amendment to its plan for the reorganization of the armored forces, intending to deploy yet another 20 mechanized corps.³⁰ This would have entailed the production of more than 30,000 tanks, including 16,600 modern T-34 or KV tanks and more than 7,000 armored cars. All in all, this was a 4 to 5 year undertaking.

This is precisely why many mechanized formations were not outfitted with weapons or combat equipment to the authorized levels before the outbreak of the war. On the average, for all types of combat vehicles, the number issued was only 53 percent of the number authorized. Of all tanks issued, merely 18.2 percent were modern.³¹ The mainstay of the tank divisions remained the T-26 and BT light tanks.

The armored forces suffered a shortage of trucks, tractors, and motorcycles. For motorized divisions, in these categories there were, respectively, 39 percent, 44 percent, and 17 percent of the authorized vehicles. At the beginning of the Great Patriotic War, the artillery issued to most motorized formations did not exceed 40 percent of that authorized.³²

The numerical strength of the armored forces increased significantly during the prewar years, multiplying by a factor of 7.4 just between January 1940 and June 1941.³³ This had a profound effect on the nature and structure of the Ground Forces, increasing their striking power and mobility. Unfortunately, some of the planned organizational measures could not be fully implemented before the outbreak of the war.

Airborne troops underwent a substantial restructuring. The creation of five airborne corps was begun in April 1941. According to its approved table of organization and equipment, such a corps consisted of three airborne brigades and an independent light-tank battalion. A special directorate was formed on 12 June 1941 to manage the airborne troops. However, the limited time available did not permit completion of the airborne corps program before the beginning of the war.

In 1940-41, to improve combat training and provide a base for the deployment of engineer units in wartime, the independent engineer battalions of military districts were transformed into engineer regiments 1,000 strong. By the spring of 1941, 18 engineer regiments and 16 pontoon regiments had been formed. In combined arms armies, besides the engineer units organic to rifle units and formations, there were 18 independent engineer battalions.³⁴

On the eve of the war, the signal troops consisted of independent regiments, battalions, and independent companies (for telegraph and telephone construction, and so on). These units were essentially instruc-

tional and served as a basis for the deployment of front and army signal units in wartime.

At its authorized wartime strength, the signal regiment under a military district or a front command included a telephone and telegraph battalion, a radio battalion, a telephone construction company, and a mobile signal company. Such a signal regiment was equipped with 10 radios (RAT, RAF, PAK, RSB, and others) and 57 telegraph sets. Its army-level counterpart had a similar structure but had fewer men and less equipment.

There were no High Command Reserve signal units for servicing the central administration of the People's Commissariat for Defense. It was assumed that in the event of hostilities all communication between Moscow and the fronts or military districts would be handled by the People's Commissariat for Communications.

Chemical troops also underwent some reorganization. By the end of 1939, these troops had 3 flamethrower tank brigades with 150 KhT-26 tanks in each. However, combat experience showed that flamethrower units could be used more effectively in close coordination with other branches, primarily with infantry. Accordingly, the flamethrower tank brigades were disbanded in 1940, and their materiel (the flamethrower tanks) was reissued to conventional tank divisions. Antichemical battalions were formed in military districts to safeguard the troops against chemical attack.

Special automotive units were integrated organizationally into the motor transport troops. They comprised 19 regiments, 38 independent battalions, a few independent companies, and approximately 27,000 trucks.¹⁴

Railroad troops underwent certain changes. It was deemed advantageous to have units specialized in particular duties, such as railroad reconstruction, track tending, and bridge building. The regimental system was superseded by the brigade system. The railroad troops subordinated to the People's Commissariat for Defense* consisted of eight independent brigades, each of which contained a railroad regiment, a reconstruction battalion, a bridging battalion, and a mechanized engineer company.¹⁵

To accommodate territorial changes in the western part of the country, a start was made in the construction of 20 fortified regions along the new state border. Armament was removed from fortified regions along the old border, but the more important regions were kept intact and manned by reduced contingents.

*[In addition, there were railroad troops subordinated to the People's Commissariat for Communications.]

Each fortified region consisted of a series of centers of resistance, arranged in two lines and echeloned checkerboard fashion to a depth of 15 to 20 km. A center of resistance comprised 3 to 5 strong points having all-round defense. Gaps 5 to 6 km wide were allowed between the centers of resistance. A security zone was created in front of the main defense zone of the centers of resistance. Field positions and obstacles were built within the fortified region between the centers of resistance and strong points.

Thus, much work was done during the prewar years to further the organizational development and deployment of the Ground Forces. Changes took place in the correlations between the numerical strengths of the branches. The percentage of rifle troops diminished from 56 percent in 1939 to 40 percent in June 1941. The relative share of armored forces rose from 7 percent to 21 percent, while that of cavalry fell from 11 percent to 2 percent.

The deployment of all branches of the Ground Forces began in the autumn of 1939. Dozens of new divisions were formed. Rifle divisions alone more than doubled in number by 1941. Altogether, by mid-1941, the Ground Forces had 303 divisions, including 198 rifle divisions, 31 motorized divisions, 61 tank divisions, and 13 cavalry divisions.¹⁷ About one-fourth of these divisions were still in the formative stage.

The Ground Forces gained considerably in striking power and maneuverability as a result of the new changes. At the same time, great difficulties were caused because the reorganization was carried out in several branches concurrently. Under these conditions, the defense industry could ensure neither full nor timely satisfaction of the troops' needs for weapons, vehicles, communications equipment, and so on.

The program for the reorganization of the Ground Forces was to have been essentially completed in 1942. Fascist Germany's treacherous surprise attack on the Soviet Union disrupted not only the Ground Forces' reorganization program but also its counterparts in the other services of the Armed Forces of the USSR.

The Soviet Air Force, which had been developing during the prewar years as an independent service of the Armed Forces, consisted organizationally of four components: High Command aviation (long-range bomber aviation), frontal aviation (the air arms of the military districts), army aviation (the air arms of the combined arms armies), and organic aviation (corps squadrons).

The air brigades were gradually abolished in the Air Force beginning in 1940. The basic tactical air formation became the division, which was predominantly mixed and consisted of 4 to 6 regiments with 60 to 63 aircraft in each.

Some formations of Long-Range Bomber Aviation were merged to form air corps, which could accomplish independent operational-strategic missions. Each such corps consisted of 2 to 3 bomber divisions having a regimental organization. As of June 1941, the aircraft inventory of border military districts included 30 percent bombers, 60 percent fighters, and 10 percent ground-attack and reconnaissance aircraft.³⁸ Seventy-nine air divisions and five air brigades were formed. Frontal and army aviation got 61 air divisions. High Command aviation received 18 divisions (13 bomber and 5 fighter).³⁹ Some air units and formations were not finished and received no modern materiel.

In February 1941, the VKP(b) Central Committee and the Council of People's Commissars of the USSR passed the resolution "On Augmented Air Defense for the USSR," which brought a reorganization of the national air defense system. The territory of the USSR was divided into air defense zones that were coextensive with the military districts: Northern, Northwestern, Western, Kiev, Southern, Far Eastern, Moscow, Orel, Khar'kov, and so forth. Each such zone was divided into air defense regions, which in turn were divided into air defense points.

An air defense corps, division, or independent brigade was posted to safeguard a large town or other important target against air attack. Fighter units or formations singled out for air defense duties were still subordinated to the Air Force commander of the corresponding military district.

Responsibility for the direction of the National Air Defense Forces was delegated as follows: in Moscow, to the Main Directorate for Air Defense of the Territory of the USSR, whose chief was General D. T. Kozlov; in a military district, to the deputy troop commander for air defense, who was also commander of the corresponding air defense zone; and in a region, to the commander of the air defense corps, division, or brigade.

By the beginning of the Great Patriotic War, the National Air Defense Forces had 3,659 air defense guns, of which 330 were of small caliber, as well as 1,500 searchlights and 850 barrage balloons. Forty fighter regiments (1,500 aircraft) were assigned by the Air Force for air defense duties.⁴⁰ On the whole, the air defense system became more coherent and easier to control. However, the combat readiness of the National Air Defense Forces was impaired by the lack of small-caliber air defense guns, up-to-date means of aircraft detection, and modern fire-control equipment.

During the prewar years, the Communist Party and the Soviet government did an immense amount of work to strengthen the Soviet Navy organizationally and to improve its combat efficiency. Sixty warships of various types were launched during the first 6 months of 1941 alone. Com-

bat groupings of destroyers, submarines, and motor torpedo boats were formed in all fleets. Squadrons were strengthened with new vessels and whole units. The Baltic Fleet, Black Sea Fleet, and Pacific Fleet were strengthened to a greater extent than the Northern Fleet, but the latter was nonetheless reinforced with new destroyers and submarines. Two new naval river flotillas were formed: the Danube and the Pinsk.

Ten submarine brigades were formed: 1, 2, 3, and 4, in the Northern, Black Sea, Baltic, and Pacific fleets respectively. Brigades of motor torpedo boats were formed in all of the fleets but the Northern.⁴¹ The Caspian Sea Flotilla and the Amur River Flotilla were reinforced with gunboats, armored cutters, and patrol boats.

Tallinn became the Baltic Fleet's main base, but Kronshtadt continued to be its home port. Other bases used by the Baltic Fleet were Liepaja, Hanko, and Paldiski. Naval bases were set up on the Estonian and Latvian coasts to create more favorable conditions for the seaward defense of Leningrad and the Gulf of Finland.

Sevastopol' remained the Black Sea Fleet's main base. Some of its ships and submarines were, however, based elsewhere, notably at the ports of Odessa, Ochakov, Novorossiysk, Nikolayev, Poti, and Batumi. Such dispersal was calculated to increase the fleet's survivability during submarine attack or aerial bombardment.

To safeguard the coastline, existing defensive works were modernized, and new ones created. In either case, they were equipped with powerful artillery systems. By June 1941, the coastal defense system had more than a thousand guns of various calibers.⁴²

As a result of these measures, the Soviet Navy became a well-organized armed force quite capable of defending the maritime borders of the USSR.

Rear services were administered by the General Staff's Directorate for Rear Services and Supply; at the military district, army, and corps levels, by the rear services department for the staff in question; at the division level, by the rear services section for the division's staff; and at the regimental level, by the assistant chief of staff for rear services.⁴³

Not long before the Great Patriotic War a system was developed for basing and bringing up supplies. It was supposed that in a war the rear services area assigned to a front (as much as 500 km in depth) would be stable and stationary. It was planned to maintain large stockpiles of materiel in such an area, including 3 to 10 units of fire, up to 10 replenishments of fuel, and 30 daily rations of provisions and forage.

For an army in the first echelon of a front, an independent railroad section was designated in the army's rear services area (which was 75 to 175 km in depth). This railroad section included a regulating station, a main army station, as many supply stations as there were rifle and mechanized corps in the given army, and supply stations for the army's air formations. At these stations, depots for the basic supply commodities were deployed. It was planned that such depots would carry no more than 2 units of fire, 3 replenishments of fuel, and 5 to 8 daily rations of provisions and forage.

Within the normal depth (up to 75 km) of its own rear services area, a division brought up supplies from a supply station to a division supply relay point using its own transport. If this distance exceeded 75 km, division transport was to be supplemented by army transport. It was expected that a division would keep on hand 1.5 units of fire, 3 replenishments of fuel, and 5 daily rations of provisions and forage.

Questions on the dismantlement, reconstruction, or demolition of railroads, as well as on the organization of rail and inland water transport, were handled by the General Staff's Directorate for Military Transportation Lines and by similar sections attached to the staffs at the military district (front) and army levels.

The VKP(b) Central Committee and the Council of People's Commissars of the USSR passed a resolution on 10 April 1941 on the reorganization of Air Force rear services. Such organs and establishments were withdrawn from flying units and formations, which were then serviced by newly formed airfield servicing battalions. The creation of airfield regions for air materiel supply was contemplated. The transition to a new, more flexible rear services organization improved the maneuverability of Air Force units and formations.

On the whole, the preparations of the Soviet Army's rear services contributed markedly to increasing its combat efficiency. However, the rear services were not fully prepared to support the troops in a surprise attack. In particular, no thought had been given to providing such support during the initial period of a war in the absence of a mobilization period. It was believed that military operations would inevitably be preceded by such a period, which would permit all rear services units and establishments to be expanded to authorized wartime strength. The support of field forces, formations, and units upon mobilization was a military district function. In peacetime, almost all mobilizational materiel was stockpiled in the military districts, primarily in those along the border. This adversely affected the timely deployment of the troops and their rear support.

By a Council of People's Commissars resolution dated 2 February 1939, the Main Directorate for Border and Internal Troops was divided into a number of independent main directorates. One main directorate was for

the Border Troops, another for escort troops, and a third for troops whose duty it was to safeguard railroad works and extremely important industrial enterprises. A directorate for operational troops was formed at the beginning of 1941.

During 1939-40, the Border Troops took over the new sectors of the state border, whose extent had grown considerably. This entailed the creation of the Baltic Border District and reinforcement of the Belorussian and Kiev border districts with 15 new border detachments.

A start was made at assimilating the new sectors of the state border, including engineer preparation of the ground and the construction of defensive works at garrison points and outposts. However, it was not possible to complete this work before the outbreak of the Great Patriotic War.

The intense work of the party and government during the prewar years ensured the harmonious development of all the services and branches. They became better trained and better organized, thus increasing the fighting strength of the Soviet Armed Forces. Even though many measures for all-round Soviet Army and Navy development were not fully implemented before the outbreak of hostilities, they still helped greatly to increase the country's defensive capability and to strengthen the Armed Forces during the war.

3. Increasing Cadre Production. Improving Troop Training and Political Indoctrination

The problem of training military cadres became especially acute during the prewar years. This was due to the increase in the Armed Forces' numerical strength, the great scope of their organizational development, and the augmented relative strength of technical and special troops. The result was a great demand for new technical, political, and command cadres.

In their efforts at cadre production, the Communist Party and the Soviet government relied upon the successes in building socialism and on the country's achievements in culture and education. In 1940, 38 million students attended higher educational institutions, secondary school, or "incomplete" secondary school* in the USSR. During the first two five-year plan periods, the country's educational institutions graduated 1,454,000 specialists with a higher or secondary education.** This was a solid base which permitted large-scale training or retraining of military cadres not only in peacetime but also, and more especially, in wartime.

*[A 7-year course of instruction, to be distinguished from the regular 10-year course - U. S. Ed.]

The solution of this problem was made easier by experience gained in work with cadres during the earlier years of the Armed Forces' organizational development.

The training of supervisory personnel cadres with higher and specialized education was handled by 19 military academies, 10 military departments in civilian higher educational institutions, and 7 higher naval schools.⁴⁵ From 1939 to May 1941, Soviet higher education prepared a large number of highly qualified commanders, political workers, and engineers for the Armed Forces.

The network of secondary educational institutions was expanded to assure the Army and Navy a sufficient number of middle-level cadres. Between July 1939 and December 1940, 77 new military schools were opened. By the summer of 1941, 203 military schools and 68 improvement courses were in operation, with more than 300,000 trainees in attendance.⁴⁶

During 1938-40, secondary military educational institutions provided the Army and Navy with approximately 130,000 command and supervisory personnel, 14,000 of whom belonged to the middle-level corps of political workers.⁴⁷

Despite the great effort to produce cadres, the military educational institutions could not keep pace with the organizational deployment of the Armed Forces. For example, in 1938 the shortage of command and supervisory personnel amounted to 34 percent of their authorized strength.⁴⁸ The greatest such difficulty was encountered in the armored forces. The formidable organizational measures introduced during 1940 and the first half of 1941 aggravated this shortage, which greatly hampered the creation of new armored units and formations.

To meet the Army's demand for cadres, supervisory personnel were called up from the reserve. The network of refresher courses was expanded considerably to accommodate them. In 1940 there were 93 such courses, as against 22 in 1937.⁴⁹ Moreover, their capacity was increased ninefold.⁵⁰ Despite this, the majority of reserve supervisory personnel did not receive refresher training before the outbreak of the Great Patriotic War.

By the end of 1940, the number of command and supervisory personnel had increased 2½ times since 1938. In the Soviet Armed Forces as a whole, the percentage breakdown by specialty was as follows: command personnel, 56 percent; political officers, 15 percent; technical officers, 10 percent; medical, veterinary, and other officers, 19 percent.⁵¹ The breakdown varied according to service and branch.

As of mid-1940, the percentage breakdown of command and supervisory personnel by party affiliation was as follows: VKP(b) members and

candidates for membership, 54.6 percent; Young Communist League members, 22 percent; nonparty officers, 23.3 percent. The percentage breakdown of officers by social background was blue-collar, 37.9 percent; peasant, 19 percent; white-collar, 38.2 percent.

An important index of the quality of command and supervisory personnel was the level of their military education. In 1940, 77 percent of the commanders and chiefs had received a military education through the secondary military school system and short courses. The proportion of command and supervisory personnel with a higher military education had dropped by more than 50 percent since 1936. This was due in part to the discharge of many personnel with a military academy background during 1937-38.

Because of the high turnover in top-ranking and senior cadres that took place at the height of the materiel modernization program and during the transition to new organizational forms, commanders and chiefs promoted to responsible posts found themselves in a difficult position. They did not have enough time to acquire the knowledge and experience for duty on a new, broader scale. During this crucial period, the lack of veteran senior cadres could not but have had an adverse effect on Army and Navy development.

In the Red Army at the end of the thirties only about 26 percent of the command and supervisory personnel had served in the Civil War and in the military operations that began in 1938. Most commanders went into the Great Patriotic War without combat experience.

In the combat actions that the Red Army had to conduct during 1938-40, command and supervisory personnel showed unbounded devotion to their party, government, and people, displayed exemplary moral and combat qualities, and demonstrated the ability to solve the complex troop management problems in planning and fighting a contemporary engagement or operation. However, certain shortcomings were apparent in the commanders' tactical training, with particular regard to the command and control of units and formations, the organization of continuous coordinated action, and the use of combat equipment.

A March (1940) plenary session of the VKP(b) Central Committee found shortcomings in officer and troop training and called for prompt action. An expanded session of the Main Military Council was held in April on the Central Committee's recommendation. It was attended by veterans of the Finno-Soviet conflict (army, corps, and divisional commanders), members of army-level military councils, and representatives of military districts, military academies, and the People's Commissariat for Defense central apparatus." Thus expanded, the Main Military Council discussed further improvements in the Red Army's combat efficiency,

with special emphasis on reorganizing the work of military educational institutions.

In accordance with the instructions of the Main Military Council, the courses and training programs of military academies and schools began to focus attention on the practical use of combat equipment and on the coordination and control of units and formations. Most war games and tactical lessons were conducted in the field, on diverse terrain, under conditions closely simulating those of the combat situation. A start was made at more extensive study and assimilation of combat experience, taking into account not only the Red Army's own experience but also the experience gained during operations conducted by the armies of capitalist states at the beginning of World War II.

In August 1940, each military school or course was put under the authority of the main directorate for the corresponding branch. This measure permitted more purposeful planning of the training process and better consideration of the features and specific cadre needs of each branch. The reorganization of military educational institutions had a salutary effect on the training and indoctrination of military cadres. However, such a massive and complex process, begun not long before the outbreak of the Great Patriotic War, could be expected to yield positive results only after an extended period.

The Presidium of the USSR Supreme Soviet issued an edict on 12 August 1940 "On Strengthening Unity of Command in the Red Army and Navy." The institution of military commissars, introduced in 1937, was abolished. Full responsibility for all aspects of the military life and activity of the troops, including their political indoctrination, was imposed on the unit or formation commander. At the same time, the post of deputy commander for political affairs was introduced, and its incumbent was answerable for the conduct of party-political work.

The strengthening of unity of command was in accord with the missions assigned to the Soviet Armed Forces by the Communist Party in connection with the escalation of World War II. The unity of command principle was ideally suited to the direction of contemporary combat, and it helped further strengthen discipline.

Soviet military science, based on Marxist-Leninist theory, underwent further development during the prewar years. This science was enriched by new data and conclusions based on experience in waging modern warfare. Such data and conclusions served as a theoretical basis for further improvement of the Armed Forces and for their preparation to wage war against a strong enemy.

Soviet military theory contended that should the imperialists unleash a war against the USSR, it would be a stubborn, protracted, and bitter war, and it would be waged until the aggressors were completely defeated. Such a war would require the timely creation of a strong rear and would entail mobilization of the entire country and its people in the war effort. "Soviet military theory has drawn attention to the augmented role of the individual in warfare, and it has demanded a systematic effort to strengthen the country's political-moral potential and to raise the morale of the Army and the people."³³

World War II proved quite unlike former wars, both in its general character and in the methods by which it was waged. On the whole, the history of World War II substantiated the Soviet doctrine developed during the latter half of the thirties on the nature of contemporary operations and the roles to be played by the services and branches of the Armed Forces. In addition, the war enabled a number of tenets on planning and conducting engagements and operations to be formulated with greater precision.

A conference of top-ranking Army officers was convened in December 1940 at the VKP(b) Central Committee's bidding. The results of combat training conducted during 1940 were summed up, and consideration was given to pressing problems of operational art and tactics. Reports were given by G. K. Zhukov, D. G. Pavlov, P. V. Rychagov, A. K. Smirnov, and I. V. Tyulenev.* At the same time, a conference of the Navy's Main Military Council heard a report given by Admiral I. S. Isakov on "The Nature of Contemporary Naval Warfare and Maritime Operations."

The discussion of the reports showed that Soviet military theory had been largely correct in its identification and generalization of the main trends in the development of military affairs during the outset of World War II.

The conference of top-ranking Army and Navy officers was a landmark in the study of war experience and in the development of the Soviet art of war. The conclusions and recommendations from the discussions served as a basis for revising and modifying the regulations and the content of combat training.

Soviet military thought, generalizing the experience of the German-Polish War and hostilities in Western Europe, did not take long to define in sufficient detail the characteristics of the offensive operation. In

The conference discussed the following reports: "The Nature of the Contemporary Offensive Operation"; "The Air Force's Role in the Offensive Operation and Its Struggle for Air Pre-eminence"; "The Role of the Mechanized Formation in the Contemporary Offensive and the Committing of a Mechanized Corps to the Gap"; and "The Nature of the Contemporary Defensive Operation."

operational art and tactics Soviet military thought stood firmly in favor of the theory of engagements and operations in depth. Combat experience and theoretical research confirmed the need for the massed use of troops on the axes of the main thrusts. Large mechanized and tank formations were one of the most important means of developing an operation to great depth. This conclusion became the theoretical basis for the creation of the mechanized corps. It was planned that such corps would be used in an offensive operation as a mobile group, which would be committed to the gap to develop the breakthrough to operational depth. This mission was to be accomplished by mechanized corps jointly with cavalry and in coordinated action with aviation and airborne forces.

It was believed that the massed use of aviation in decisive sectors in coordinated action with armored forces and airborne forces would intensify the momentum of military operations and would increase the scope of the offensive.

Improvements were made to the theory of defensive actions. During the prewar years, questions on planning and conducting defensive combat were defined with greater precision: the dimensions of defense sectors and zones, the densities of men and equipment in defense, the nature of the actions to be fought by defending troops, and so forth. Special attention was paid to ensuring defensive stability in the face of tank and air attack, as well as to mounting counterattacks and counterblows against advancing enemy groupings. It was recommended that the mechanized corps be used as an army or front reserve to deal counterblows from the depth to destroy enemy groupings that had broken through.

Problems in organizing and waging defensive warfare were considered mainly as they applied to an army operation. Due attention was not paid to defensive operations on a multiarmy or multifront scale, and this was a serious oversight of Soviet military theory.

Certain miscalculations were made in generalizing the experience of the first campaigns of World War II. In particular, the importance of the initial period of the war was underestimated with regard to its impact on the war's subsequent course. The aggressor dealt blows with troops long since mobilized and already deployed for an offensive, which gave him great operational and strategic advantages. Obviously, a country which did not intend to strike first, but was rather a proponent of the counterblow, preparing to repel aggression, should have taken into account the changeable nature and content of the initial period of a war and should have maintained the Armed Forces in constant combat readiness.

Unfortunately, due to lack of time, Soviet military theory did not manage to create a consistent system of views on the initial period of the war, nor to make corresponding recommendations to the military leader-

ship, which still believed in the possibility of large-scale personnel reorganizations and extensive technical measures in a situation of mounting military threat.

The tactics of all branches underwent further development during the prewar years, especially the theory of planning and conducting combined arms combat.

A redraft of the 1936 RKKA Interim Field Service Regulations, reflecting the accumulation of combat experience and changes in the Armed Forces since that time, was promulgated in the summer of 1940. The regulations emphasized that in modern combat wide use would be made of artillery, tanks, and aviation. Combat actions would be distinguished by their rapid rate of development and by the decisive nature of their forms. Combat actions would make heavy demands on the training, morale, and physical fitness of personnel, and would call for adept use of combat equipment. For success in combat, concentration of superior forces in the main sector and continuous coordinated action by all branches would have to be accompanied by attainment of air supremacy. The redraft refined the battle formation for units, identifying their components: combat echelons, artillery groups, tank support groups, general reserves, tank reserves, and antitank reserves.

Considering the offensive the fundamental form of combat, the redrafted Field Service Regulations called for a skillful combination of the offensive and the defensive in sectors of the front where aggressive action was either pointless or impossible. The defense was subdivided into two categories: static and mobile. In the latter, a temporary loss of ground was permissible. Static defense now contained a new element, the forward position of resistance, created to cover the most important axes 2 to 3 km distant from the forward edge of the main position of resistance. Detailed treatment was provided of the disengagement and withdrawal, encounter in an encirclement, and breakout of an encirclement.

For the first time, the Field Service Regulations contained recommendations on the defense of fortified regions and indicated what methods could best be employed in coordinated actions fought jointly by ground forces and aviation.

On the whole, Soviet military theory came to important generalizations and conclusions during the prewar years. However, no matter how profound and thoroughly developed a military theory may be, it is impotent until it is mastered by the troops and, above all, by those who lead them. Unfortunately, the matter of putting military theory into practice left much to be desired.

The Ground Forces, primarily rifle troops, artillery, and armored forces, had neither regulations nor manuals that reflected the experience of recent wars. A troop inspection report for 1940 noted that servicemen were learning from superseded publications because current editions were not available. Issue of the redrafted Field Service Regulations began not long before the war, so the content could not have been sufficiently assimilated before the onset of hostilities.

The March 1940 plenary session of the VKP(b) Central Committee criticized the system then in effect for the combat training and political indoctrination of Army personnel and emphatically called upon the military leadership to restructure that system, thus increasing the combat efficiency and combat readiness of the Armed Forces.

Guided by the Central Committee's instructions, the People's Commissariat for Defense issued Order No. 120 "On Combat Training and Political Indoctrination for the Summer of 1940." In that order was the demand that troop training and indoctrination center on the principle "of teaching the troops what they must do in war, and only as it is done in war." Special attention was paid to preparing troops to fight in adverse situations and to organizing and maintaining constant coordination and control in engagements and operations. More exacting demands were made on the operational, tactical, and staff training of commanders and staffs at the unit and formation levels.

Commanders and staffs were required to organize combat training so that the troops were in constant combat readiness; to arrange that tactical exercises be conducted both day and night, and in any weather; to eliminate conventionality and routine from the training process; to acquire a deep understanding of the combat capabilities of the various branches, so that they could be assigned missions realistically and provided close coordination in all types of combat; to improve the individual training of enlisted men; and to promote good order and discipline, having regard to the conformity of the troops with established procedures.¹⁴

Training was intensified in staffs and in the field. A tour of inspection during the spring of 1941 revealed that the level of training in units and formations had risen significantly. Commanders and staffs had become versed in command and control and in organizing the coordination of the services and branches.

Rifle troops were better prepared for combat actions under adverse environmental conditions, and their field training had improved. However, some platoon leaders and company commanders still lacked experience in organizing and accomplishing fire support. Nor were they yet adept in controlling their fire means."

Cavalry divisions and corps had gained experience in long-distance marches. However, the commanders and staffs of such formations had not yet mastered the art of coordinating with motorized divisions, tank divisions, and aviation in actions in the enemy's operational depth.

Artillery troops gained experience in joint actions with infantry, tanks, and cavalry at the following levels: battery—company, battalion—battalion, and artillery group—regiment. They became skilled in giving infantry and tanks fire support and in keeping pace with their advance. A weak point in the artillery troops' training was their poor preparedness to combat the enemy's tanks.

Combat training was carried out in the armored forces during their rearming and reorganization. The heavy KV and the medium T-34 modern tanks were being assimilated during this period, while new units were in the formative stage. Because of this, due attention was not paid by motorized or tank units and formations to combat training and to practical application of the methods used in engagements and operations. Best prepared were the first nine mechanized corps, which began formation in the summer of 1940. These managed to simulate armor actions involving battalions and regiments, and they also conducted command-and-staff exercises with designated troops at the division and corps levels. However, the greater part of the mechanized corps, formed in the winter and spring of 1941, was not fully prepared before the outbreak of the Great Patriotic War for the complex missions which that war would present.

The reorganization and deployment of the airborne troops was not finished during the prewar period. The airborne corps were fully manned by the outbreak of the Great Patriotic War but lacked materiel.

The signal troops had mastered their new materiel and had worked out an efficient communications organization for the various modes of combat.

The engineer troops were occupied with the engineer support of the Ground Forces: preparing assault lines; laying cross-country routes; building and surmounting antitank and antipersonnel obstacles; developing operational and tactical camouflage; organizing coordinated action with infantry and tanks belonging to shock groups; supporting river crossings; and creating defensive works. Much attention was paid to minimizing work not connected with preparation for combat. Every endeavor was made to raise the general technical level of personnel and make them adept in handling engineer equipment.

The National Air Defense Forces became skilled with their new artillery systems, mastered the art of engaging air targets by day or night in any weather using fire-control radar, and developed methods for repelling massive air raids in coordinated action with fighter aviation. However,

lack of sufficient radar fire-control equipment prevented effective air defense fire at night, in bad weather, and when there was unbroken cloud cover.

In the Air Force, combat training proceeded under conditions present in mid-1940 that included the reequipping of air units, the assimilation of new materiel by flight and technical personnel, the restationing of air units, and the radical transformation of Air Force rear services.

Aircrews learned to fly at night, in adverse weather conditions, and at low, medium, and high altitudes. They practiced fire missions and tactical missions in a single aircraft, flight, or squadron, and in coordinated action with ground and naval forces.

In July 1940, the Navy's Main Military Council insisted that the shortcomings in naval training discovered during the winter of 1939-40 be eliminated. Action was to be taken to bring squadron and flotilla exercises into line with operational missions; to increase the role of command personnel in the martial life of the Navy; to improve staff work in the coordination of warships with each other, with aviation, with coastal defense facilities, and with ground forces; and to raise the quality of specialist training.

Naval training afloat was restructured, and by the beginning of 1941 it had improved considerably. The number of training cruises, tactical exercises, detachment exercises, and maneuvers increased. In 1940, maneuvers were conducted in three fleets. Warships spent more time at sea, and the intensity and frequency of shipboard drills increased. Gunnery training was improved through use of the latest fire-control equipment. There were more frequent torpedo firings and minelaying exercises. Submarine crews learned to overcome antisubmarine obstacles and to operate covertly off the enemy's shores. They also learned to act in coordination with surface ships and aircraft. Coastal defense batteries were ready to perform fire missions in bad weather by day or night. Naval engineer and coastal defense personnel built defensive works, improved the camouflage of key shore installations, and increased their own combat readiness.

The growth of the military's numerical strength, together with the changes in organization and instructional techniques, made improved forms and methods mandatory in party-political work and called for the reinforcement of unit political personnel. At the beginning of 1941, the training of political workers was conducted in 70 military-political educational institutions. The ranks of political workers were swelled by the mobilization, in 1939-40, of 5,500 party members from territorial party organizations.

In mid-1940, the Red Army's Main Political Directorate, subordinate political directorates, and political sections were transformed into the corresponding directorates and sections for political propaganda. However, this measure was at variance with the party rules adopted by the 18th VKP(b) Congress and, as experience proved, tended to restrict the functions of party organs in the Armed Forces.

The further broadening of party-political work in the Armed Forces was due primarily to the growth of party organizations. The number of party members in the services increased from 434,900 to 563,500 between January 1939 and June 1941, while the number of party organizations increased from 9,468 to 12,200.⁴ About 50 percent of all companies and equivalent units had party organizations.

The increase in the numerical strength of the Red Army's party organizations was due mainly to an augmented intake of private soldiers and junior command personnel. Whereas at the end of 1938 the party stratum accounted for only 25 percent of such personnel, by mid-1940, that figure had risen to more than 40 percent.⁵

The Young Communist League organizations of the Army and Navy grew and strengthened. The 18th VKP(b) Congress resolution to broaden the Young Communist League's role in the nation engendered vigorous activity in all of the league's organizations. There was such an organization in each Army unit and on each Navy vessel. Compared with 1939, the strength of the Young Communist League in the Army and Navy had increased by a factor of 2.5 by the summer of 1941, and its membership was then more than two million strong.⁶

In April 1939, the VKP(b) Central Committee approved a statute on Young Communist League work. Among its provisions was a clause stating that wherever there was neither a party organization nor a composite party and Young Communist League group, responsibility for the implementation of party directives was to be assumed by the Young Communist League organization. The powers of such organizations were broadened considerably. Army and Navy Young Communist League organizations sought to strengthen discipline, carried out ideological work among young servicemen who were not Young Communist League members, and encouraged servicemen to master a military specialty.

The strengthening of party and Young Communist League organizations had a salutary effect on the content of all political indoctrination work. In August 1940, guided by the Central Committee's instructions, the Main Directorate for Political Propaganda issued the directive "On Restructuring Party-Political Work." This directive required such work to be carried to the tactical training fields, the proving grounds, and the

airfields, and to be tied more closely to the missions that units had to accomplish.

The decisions made by the 18th VKP(b) Congress enriched the content of political training for servicemen. Greater emphasis was placed, during formal political instruction, on showing the advantages of the socialist order over its capitalist counterpart and on showing the sources of the Soviet Union's economic and military power, the successes attained in building socialism, and the prospects for the future. All this inculcated in Soviet servicemen a high civic spirit, a sense of responsibility for the fate of the Motherland and her people, and a selfless readiness to defend them against imperialist aggressors.

An important event in the organizational development of the Soviet Armed Forces was the Supreme Soviet's ratification of a revised text for the military oath in January 1939. The oath, formerly taken collectively, was henceforth to be taken individually. On 23 February 1939, in a spirit of intense political elation, Army and Navy personnel vowed to meet the demands of the new military oath.

A true friend to the party in improving combat training and political indoctrination was the military press. In 1941, besides the central newspapers *Krasnaya zvezda* and *Krasnyy flot*, the magazines *Voyennaya mysl'* [Military Thought] and *Morskoy sbornik* [Naval Digest], and other central publications, there were 632 military newspapers (21 at the military district and fleet level; 22 at the army and naval flotilla level; and 589 published by formations and educational institutions).³⁹ The military press was a propagandist of the latest achievements in the art of war, and it was an effective weapon in the campaign for stronger discipline.

The work in familiarizing the general populace with defense matters became much more intense during the prewar years.

This work was managed by the military sections of the district, municipal, regional, and territorial committees, and by appropriate party sections of the central committees in the union republics. These military sections considered mass defense education work a means of producing vigorous and socially conscious builders of communism, and a method of training the general populace to defend the Motherland. Military knowledge was propagated on a large scale. Hundreds of thousands of working people mastered military specialties: they became skilled with rifles and machine guns, learned to drive trucks and motorcycles, studied communications, and practiced parachute jumping. An important role in the program was played by the Society for Assistance to the Defense, Aviation, and Chemical Warfare Industries, a massive and constantly growing organization. Whereas it numbered 7 million members in April 1938, by April 1941 it was 13,500,000 strong.⁴⁰

The main purpose of military-patriotic work was to educate the Soviet people in the spirit of patriotism and internationalism, to strengthen the moral-political unity of the nation, and to weld all the ethnic groups of the USSR into a single working family.

Thus, much work was done during the prewar years to improve combat training and political indoctrination in the Soviet Armed Forces. This work was an important factor in repulsing the attack by fascist Germany. Military personnel possessed high moral-political and combat qualities, and they were ready to defend the socialist Motherland.

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The development of the Armed Forces of the USSR between the Civil War and the Great Patriotic War took place under the guidance of the Communist Party and was coordinated with the Soviet people's efforts to build socialism. At each stage in the campaign for socialism, the party plotted the course for the Armed Forces. Always taking into account the international situation, the state of the economy, and the levels of science and technology, the Central Committee made timely statements of its aims for the organizational development of the Soviet Armed Forces and assigned specific missions to this end.

Deriving insight from Marxist-Leninist teaching on war and the army, Soviet military science correctly determined the characteristics of a possible war, and then proceeded on the assumption that the USSR would have to wage such a war against a coalition of imperialist powers possessing massively equipped armed forces that were well able to fight a war of maneuver on land, by sea, and in the air. These fundamental tenets determined the content of Soviet military doctrine, the general direction taken for the development of the Army and Navy, their composition and structure, the level and features of their equipment, and their training to repulse possible aggressors.

During 1921-23, the Soviet Armed Forces were developed on a regular basis. The mixed system of development that prevailed for the next fifteen years was a combination of regular troops and territorial militia formations. At the end of the thirties, a transition to a regular, unified system was dictated by the growing threat of imperialist aggression and the need to safeguard the security of the USSR.

The continuous process of development and improvement in the Army and Navy was closely connected with the features, level, and growth rate of military technology, as well as with the degree to which the troops were equipped with this technology. Any increase or renewal in the logistical base of the Army or Navy led to radical changes in force structure and

troop organization. Technical reequipping and the massive introduction of better weapons led to the appearance of units, formations, branches of troops, and even services of the Armed Forces that were new in terms of their capacities and purpose.

As the Armed Forces became better equipped, and as the social base from which they were manned and deployed became broader and firmer, the system for officer training and indoctrination improved correspondingly. The period between the wars saw the solution to one of the most difficult problems of military organizational development: the training system produced tens of thousands of officers who were dedicated to the cause of the Communist Party, who possessed high moral-political and combat qualities, and who had the ability to take charge of the complex matter of the development and improvement of the Soviet Armed Forces.

The stage was set for the transition to unity of command, which was an extremely important principle of military organizational development. Unity of command was engendered, established, and developed under the Communist Party. As a representative of the party and the Soviet state, the commander invested with unity of command always acted in ways that reflected party and state policy. He was a strict upholder of military law and regulations, and he embodied the qualities of an unprecedented military and political figure.

The materiel modernization program, together with the organizational improvements, increased the Armed Forces' combat capability, striking power, firepower, and maneuverability. All this entailed more defense research, a new look at unsolved problems of the art of war, revision of regulations and instructions, and modification of combat training and political indoctrination methods.

Party-political work was conducted purposefully and on a daily basis in all services of the Armed Forces. In such work, all-round consideration was constantly taken of the servicemen's social maturation due to the victories of socialism. The party building experience gained by territorial and military organizations was the focus of attention as well.

During the period between the Civil War and the Great Patriotic War, a titanic effort made by the Soviet people under the guidance of the Communist Party resulted in the emergence of the powerful Soviet Armed Forces, which, in combat qualities, were equal to the strongest of capitalist armies and, in morale, were immeasurably superior to them. The Soviet Armed Forces derived their strength and power from the superiority of the socialist order to its capitalist counterpart, and this superiority was reflected in the accomplishment of the tasks of war.

"Our party," noted L. I. Brezhnev, "encountered the forces of imperialism, and prepared our land and people for defense. The socioeconomic gains of the prewar five-year plans, together with the ideological and political unity of Soviet society forged in building socialism, underlay the victory won by our people in the Great Patriotic War."⁶¹

During the war with fascism, the principles underlying the organizational development of the Soviet Armed Forces—principles conceived by V. I. Lenin and later tested empirically by the Communist Party—not only withstood a severe verification but also were replenished with new content, thus confirming the great potentialities of socialism.

Notes

1. *World War II History*, II, 217.
2. *CPSU in Resolutions*, V, 342.
3. *Ibid.*, 343.
4. *CPSU History*, V, Bk. I, 117, 120.
5. *World War II History*, III, 386.
6. D. N. Bolotin, *Sovetskoye strelkovoye oruzhiye za 50 let* [Soviet Small Arms During the Past Fifty Years] (Leningrad, 1967), p. 314.
7. *Fifty Years of the Armed Forces*, p. 225.
8. *Ibid.*
9. *World War II History*, III, 421.
10. *Sovetskiye tankovyye voyska 1941-1945* [Soviet Tank Troops 1941-45] (Moscow, 1973), pp. 9-10.
11. *CPSU History*, V, Bk. I, 125.
12. *World War II History*, III, 421.
13. A. S. Yakovlev, *Sovetskiye samolety* [Soviet Aircraft] (Moscow 1975), pp. 67, 68.
14. *World War II History*, III, 425.
15. *Ibid.*, 427.
16. *CPSU History*, V, Bk. I, 130.
17. *World War II History*, III, 418.
18. *Ibid.*, 419.
19. *World War II History*, II, 200.
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PART III: THE ORGANIZATIONAL DEVELOPMENT OF THE SOVIET ARMED FORCES DURING THE GREAT PATRIOTIC WAR

Chapter 8. Strengthening the Soviet Armed Forces and Defeating Fascist Aggression

(June 1941–November 1942)

1. Turning the Country Into an Armed Camp. Raising the Output of Arms and Equipment

On 22 June 1941, treacherously violating the nonaggression pact, and without declaring war, fascist Germany mounted a surprise attack on the Soviet Union. Germany's European allies—Italy, Hungary, Rumania, and Finland—also entered the war against the USSR.

The war began under conditions that were unfavorable for the Soviet Union. Whereas the Armed Forces of the USSR had not managed to complete many measures undertaken for their organizational and technical improvement, the army of the aggressor had been mobilized and deployed in good time, possessed the latest arms and combat equipment, was superior in mobility and maneuverability, and had almost two years of active service. All in all, fascist Germany and her allies threw against the USSR the main mass of their troops: 190 divisions, more than 4,000 tanks, and about 5,000 aircraft.¹ The enemy created great superiority in men and equipment on the axes of the main thrusts, and then drove stubbornly toward the vitally important centers of the country: Moscow, Leningrad, Kiev, and the Donets Basin.

The Soviet troops fought under exceptionally harsh conditions, sustained heavy casualties, and were obliged to retreat. The enemy managed to seize a substantial amount of Soviet territory.

The causes of the failures that befell the Armed Forces of the USSR at the beginning of the war were complex and diverse. They were due to a number of political, economic, and military factors. In particular, the

fascist German army had a number of temporary advantages resulting from the militarization of Hitlerite Germany, seizure of the military economic resources of almost all Western Europe, and long preparation for aggression against the USSR.

Besides, estimates on the possible timing of a German attack on the USSR were mistaken. There was negligence in the preparations to repulse the first blows of an aggressor. Instances of such negligence included the lack of readiness of units and formations in border military districts to repel a strong surprise attack; the noncompletion of troop rearming and reorganization measures; and the fact that the rifle and armored formations of the combined-arms covering armies were not manned to authorized strength. The complete lack of combat experience among the overwhelming majority of command and supervisory personnel also told on Soviet forces.

The failures of the first weeks of the war did not break the will of the Soviet people or their army to resist. The mortal danger that hung over the country did not have the effects desired and expected by the fascist German leadership: it did not weaken the political basis of the Soviet order, the alliance of the working class and the collective farm peasantry; nor did it undermine the friendship between the ethnic groups of the USSR. On the contrary, this mortal danger turned the country into a unified, unconquerable armed camp. At the call of the Communist Party, all the people rose to meet the challenge of the Great Patriotic War and began to reinforce the Army and Navy. Mobilization was soon in full swing.

Owing to the support received from the people as a whole, the Soviet Armed Forces endured the enemy's initial onslaught. In the Battle of Moscow, and elsewhere on the Soviet-German Front, the Soviet Armed Forces shattered the myth that Hitler's army was invincible, and began what was to become a decisive turning point in the war. The Communist Party, the inspirer, organizer, and leader of the nationwide campaign against the aggressor, was guided in its work by V. I. Lenin's observation that "once the matter has gone as far as war, everything must be subordinated to the interests of the war; the entire internal life of the country must be subordinated to the war. . . ."

The VKP(b) Central Committee and the Soviet government worked out a program to mobilize all the country's resources to repulse and destroy the enemy. An important element of that program was the development of a strong and capable army. The party's call—"Everything for the Front, Everything for Victory!"—became the law of life for each Soviet citizen. ". . . The Central Committee was the military staff that provided the top-level political and strategic direction of military operations."

On 22 June 1941, the Presidium of the USSR Supreme Soviet issued the decree "On Martial Law," stipulating that in localities declared to be under such law, all functions performed in peacetime by organs of state authority in matters of defense, maintenance of public order, and state security were henceforth to be performed by the military council of the local front, army, or military district, and where there was no such council, then by the senior troop commander present.

The military authorities had the following powers: to conscript civilians for labor on defensive works and for guard duty of communication routes, public works, communication facilities, power stations, and other important installations; to requisition transport facilities and any other property needed for defense, both from state, public, and cooperative enterprises and organizations and from private citizens; to regulate trade and the operation of trading organizations and communal enterprises; and to establish norms for the issue of foodstuffs and manufactured goods to the public.

The detailed program formulated by the Communist Party to turn the country into a unified armed camp was set forth in a directive, dated 29 June 1941, sent by the VKP(b) Central Committee and Council of People's Commissars of the USSR to party and soviet organizations in regions adjacent to the front. The party explained to the people that the war was a just one, and that it was the sacred duty of each Soviet citizen to defend the Fatherland with courage and fortitude. The directive required of everyone: "In the merciless struggle with the enemy, to defend each inch of Soviet soil, to fight to the last drop of blood for the towns and villages, and to display the valor, initiative, and resourcefulness that are characteristic of the people." Foremost in this document were strengthening the army in the field by all possible means, putting the economy on a war footing, and starting a partisan movement on enemy-occupied territory. The work of party, soviet, and economic organizations was rearranged to meet the demands of war, as was the activity of the state as a whole. The directive was, in effect, the first military-political plan. At the outset, it served to mobilize all the country's resources to repulse the enemy; later, it underlay the attainment of the main strategic goal of the initial period of the war—to thwart the fascist plan for a blitzkrieg.

The main points of the directive issued by the VKP(b) Central Committee and the Council of People's Commissars of the USSR were the subject of a speech made by J. V. Stalin on 3 July 1941. These points were elaborated in subsequent party and government resolutions.

The initial directive and subsequent resolutions underlay the organization of national defense and development of the Armed Forces. To improve the direction of military operations and the functioning of rear services, important changes were made to the structure of party and state

organs. Their organization and methods were adapted to wartime conditions and to providing comprehensive support for the army in the field.

The situation demanded that the entirety of state authority be concentrated in a single organ having extraordinary powers, and to this end, the State Defense Committee was formed on 30 June 1941 under J. V. Stalin's chairmanship. It was made up of full members and candidate members of the VKP(b) Central Committee Politburo: V. M. Molotov (deputy chairman), K. Ye. Voroshilov, G. M. Malenkov, and somewhat later, N. A. Bulganin, N. A. Voznesenskiy, L. M. Kaganovich, and A. I. Mikoyan.¹

State Defense Committee resolutions had the force of wartime law and were binding on all party, soviet, and military organs as well as on all government departments and labor organizations. Among its functions, the State Defense Committee was to resolve state and national economic problems that affected the conduct of the war. The most pressing of such problems included mobilizing the country's human and material resources; putting the national economy on a war footing; and solving the basic problems in the organizational development of the Soviet Armed Forces.

The establishment of the State Defense Committee, invested with extraordinary powers, permitted the fullest use to be made of the country's economic, sociopolitical, spiritual, diplomatic, and military potentialities to destroy the fascist aggressors and strengthen the Army and Navy.

Local organs invested with extraordinary powers—municipal defense committees—were formed in towns in danger of enemy occupation due to their proximity to the front. Such committees were required and empowered to build defensive works, to form People's Home Guard units, and to arrange for weapons and combat equipment to be manufactured or overhauled by local enterprises.

On 1 July 1941, the Council of People's Commissars of the USSR passed a resolution broadening the powers of people's commissars under wartime conditions. The commissars were given full authority to decide matters related to meeting construction and production plans.

The main goal of the measures implemented at that time was to subordinate all sectors of the economy to the needs of the Armed Forces with the least possible delay. Special attention was paid to the defense industry. People's commissariats were formed for the tank and mortar industries to provide efficient and qualified management for these sectors. Sections were formed within the State Planning Commission for armament, ammunition, shipbuilding, aircraft production, and tank construction. These sections formulated plans for the output of armament and combat equip-

ment by all enterprises, regardless of departmental affiliation. With the creation of these organs, the decisive sectors of the defense industry received specialized, centralized management.

Defense needs absorbed the greater part of the national output of iron, steel, nonferrous metals, artificial rubber, cellulose, special fabrics, and other industrial products. Not merely isolated enterprises, but whole industrial sectors, were turned over to defense production.

The decision to place the country's economy on a war footing entailed a critical review of existing economic plans.

On 16 August [1941], the VKP(b) Central Committee and the Council of People's Commissars of the USSR approved a military-economic plan presented by the State Planning Commission for the fourth quarter of 1941 and the whole of 1942 concerning the Volga River region, the Urals, Western Siberia, Kazakhstan, and Central Asia. The plan outlined mass production of aircraft, tanks, small arms, all types of artillery guns, mortars, and ammunition. Also formulated was a program to increase the output of electric power, aviation fuel, iron, steel, nonferrous metals, coal, and oil in the eastern regions.

Relocation of a large number of industrial enterprises into the deep rear was deemed an extremely important military-economic task by the VKP(b) Central Committee and the Soviet government. The rebasing of industry in the eastern regions of the country, made mandatory by the extremely unfavorable situation at the front, entailed immense organizational work by party, soviet, and economic organs. Complex equipment had to be dismantled in a short time, evacuation by rail arranged for, new locations chosen, new industrial complexes built, equipment reassembled, and defense production started. There was also the formidable problem of attending to the millions of people who arrived in the new regions with their enterprises, and who had to be housed, clothed, and fed.

During the first 6 months of the war, 1,523 industrial enterprises, 1,360 of which were large and mainly military, were withdrawn from the threatened regions. Some 226 of them were relocated in the Volga River region, 667 in the Urals, 244 in Western Siberia, and 308 in Kazakhstan and Central Asia. Some enterprises were moved to Eastern Siberia and to the Transcaucasian republics. About 1 1/2 million railroad cars were hauled eastward with various equipment, raw material, and fuel. More than 10 million people were evacuated into the rear regions. In effect, a whole industrial power was shifted thousands of kilometers.

The founding of an evacuated defense industry adequate to the Armed Forces' needs was made easier by the fact that a large industrial network with a fuel-and-power base had been created in the eastern regions of the

country during the prewar years. Much prospecting had been done for mineral resources, and transportation lines had been laid.

Creation of the Soviet Union's main arsenal in the deep rear required considerable expansion of her raw material and fuel-and-power base. Soviet metallurgists, especially those of the eastern regions, were given the task of significantly increasing the output of metals, substantially improving their production technology, and mastering the art of making new grades of iron, steel, and armor plate as fast as possible.

The temporary loss of the Donets Basin caused an acute nationwide shortage of coal. The fuel situation was further aggravated in the autumn of 1941, when the Moscow Coal Basin fell into the enemy's hands. Before the war, the regions now occupied by the enemy had supplied 63 percent of the country's coal.⁷ In December 1941, the State Defense Committee passed a resolution to increase coal production in the Urals, Kuznetsk Basin, and Karaganda. Steps were taken to expand existing oil refineries in the Volga River region, Kazakhstan, and Central Asia, and to build new ones in those same areas.

In July 1941, the Soviet government decided to increase the pace of power station construction in the Urals. The program to put more power stations on line in Western Siberia was accelerated. The overall shortage of electric power demanded a system of rationing in which the defense, metallurgical, and coal industries had precedence.

Implementation of all these measures gradually produced results. Owing to the party's efforts, and to the selfless toil of the working class, production of the basic industrial commodities got underway. However, by no means had all difficulties been overcome: far too much harm had been done by the Hitlerites to the Soviet economy, especially to heavy industry and power engineering.

Production figures for the basic industrial commodities in 1941-42 are given in table 5.

Table 5. Output of Key Industrial Commodities in the USSR.^a

Commodity	1941		1942	
	1st half	2nd half	1st half	2nd half
Electric power, billion kwh	27.4	19.3	14.1	15.0
Coal, million tons	91.9	59.5	35.7	39.8
Oil, million tons	17.3	15.7	11.7	10.3
Iron, million tons	9.0	4.8	2.3	2.5
Steel, million tons	11.4	6.5	4.0	4.1
Rolled ferrous metals, million tons	8.2	4.4	2.6	2.8
Iron ore, million tons	16.6	8.1	4.6	5.1

As may be seen from table 5, the second half of 1941 and the first half of 1942 were fraught with tension, both in the economy and in the entire life of the Soviet Union. The output of the basic industrial commodities during the first half of 1942 diminished in comparison with the first half of 1941 by the following factors: electric power, almost 2; coal, 2.6; oil, 1.5; iron, almost 4; steel, 2.9; rolled ferrous metals, more than 3; and iron ore, 3.6. On the whole, the decline in the output of the basic industrial commodities leveled off during 1942, although the volume of such output was still inferior to the figures for the second half of 1941. Defense production was going smoothly by the end of 1942.

The fascist German summer offensive of 1942 caused further economic problems. Certain enterprises had to be evacuated. The country's main oil base was in a particularly difficult situation. Additionally, tanker movements across the Caspian Sea were hampered.

Difficulties in organizing production were aggravated by a shortage of labor. On 13 February 1942, the Presidium of the USSR Supreme Soviet issued the decree "On Mobilization of Able-Bodied Town Dwellers for Work in Industry and Construction for the Duration of Hostilities."

Turning the country into a unified armed camp required a restructuring of agriculture, which was confronted by the immensely important task of providing the Armed Forces and the civilian population with foodstuffs, while providing industry with raw materials. The unfavorable development of events at the front was reflected in the sorry state of the rural economy. By November 1941, 47 percent of all areas under crops was in the hands of the invaders. In these circumstances, an augmented role began to be played by the eastern regions, where, by the autumn of 1941, the area under winter crops had increased considerably in comparison with the 1940 figure. However, despite the selfless toil of collective farmers and state farm workers, the level of agricultural production dropped sharply. The gross yield of grain fell from the prewar 1940 figure of 95,500,000 tons to 29,700,000 tons for 1942, or by a factor of more than 3.⁹ The number of cattle, horses, and hogs fell by factors of 2.1, 2.6, and 4.6 respectively.¹⁰ There was a significant decline in the harvest of raw cotton, long-fibered flax, sugar beets, sunflowers, and so on.

Despite the sharply reduced output of agricultural produce, the Soviet state managed to mobilize all human and material resources in such a way that neither the front nor the rear suffered any serious interruption in the receipt of rations in accordance with established norms.

Soviet scientists made a worthy contribution to strengthening the Soviet Armed Forces. The "General Staff" of Soviet science—the Academy of Sciences of the USSR—restructured the work of the research institutes to help in the development of weapons and combat equipment; in the quest

for, and utilization of, new material resources; and in the furnishing of scientific expertise to the national economy for the organization and expansion of defense production.

Thus, owing to the merits of the socialist methods of production, the Soviet state put its entire economy on a war footing in a comparatively short time under exceptionally difficult conditions. The necessary foundation had been laid for satisfying the needs of the front, for strengthening the Armed Forces, and for solving the important new problems of their organizational development.

The war demanded the quickest possible expansion of the defense industry and the mass production of military commodities, above all, the means of armed conflict: small arms, tanks, aircraft, artillery guns, mortars, and ammunition.

Small arms occupied an important place in the Army's weaponry. Despite the wide use of new forms of combat equipment, small arms continued to predominate, playing a huge role in combat actions.* Their qualitative and quantitative improvement therefore remained an important goal of military development.

The prewar Soviet small-arms arsenal met the demands made of it, but nonetheless had substantial shortcomings. The principal problems were the profusion of pistol, rifle, and machine gun types and the lack of an effective infantry antitank weapon.

The growing demand for high-density small-arms fire brought an increase in the output of automatic weapons. During the second half of 1941, the defense industry produced about 90,000 submachine guns and nearly 106,000 machine guns. Of the 669,500 weapons in these categories that were produced during the first half of 1942, more than 535,000 (or 80 percent) were submachine guns.¹² The tendency of submachine guns to account for an increasing proportion of the automatic small-arms production was also characteristic of the latter half of 1942.

The problem of designing and mass-producing an effective antitank rifle became especially pressing. Fortunately, the prewar experience of Soviet designers in this area permitted them to solve this problem quickly.

During the second half of 1941, the troops began to receive the Degtyarev and the Simonov antitank rifles, both highly effective antitank weapons. The structural simplicity of the antitank rifles, especially that of the Degtyarev, permitted them to be put into mass production promptly.

*Small-arms fire accounted for 30 to 50 percent of the casualties in World War II."

A total of 17,765 antitank rifles had been produced by the end of 1941, and in 1942 their production reached 248,000.

War needs dictated large-scale production of artillery, especially anti-tank artillery. No time was wasted in resuming the production of 45mm antitank cannons and 76mm regimental and divisional cannons, which bore the brunt of the struggle with the enemy's tanks. The output of field guns during the second half of 1941 was three times greater than in the first half of that year.¹³ Nonetheless, the production of artillery and mortar armament failed to meet the demands of the front, and fell short of the requirements posed by newly created formations.

Soviet artillery achieved further quantitative growth and qualitative improvement during 1942. That year saw a modernized 45mm antitank cannon and a new 76mm divisional cannon (ZIS-3) go into service. Mass production of these weapons permitted the 37mm and 85mm air defense guns to be withdrawn from antitank artillery and returned to air defense units. The People's Commissariat for Armament, headed by D. F. Ustinov, increased artillery production considerably in 1942. Whereas 15,856 field guns of 76mm or greater caliber were produced in 1941, the corresponding figure for 1942 was 33,111 guns.¹⁴ The structure of artillery armament changed significantly. The breakdown of prewar artillery production had been 29 percent cannons, 71 percent howitzers. By the end of the first year of the war, the breakdown was 92 percent cannons, 8 percent howitzers.¹⁵ Mortar production grew from month to month. The defense industry produced 125,570 mortars in the 82 to 120mm range during 1942, which exceeded the 1941 figure by a factor of 5.5.¹⁶

Production of the BM-8 and BM-13 (Katyusha) rocket launchers was expanded considerably. A total of 3,237 rocket launchers went into service in 1942.¹⁷

The Communist Party and the Soviet government paid a great deal of attention to the mass production of armor, especially medium and heavy tanks. Much had been done in this area during the prewar years. However, the plan to reequip the Army with T-34 and KV tanks was far from complete by June 1941. The Soviet Army entered the war with a rather large quantity of armor, which was, however, already obsolete and badly worn.

During the first months of the war, when key industrial centers such as Khar'kov and Leningrad, and later, Stalingrad, were under attack, the party and government were confronted with the formidable problem of creating without delay what would amount to a new tank production complex in the eastern regions of the country.

To set up a tank industry in the East required a certain amount of time. Meanwhile, the situation at the fronts was extremely adverse. The stamina

and fortitude of Soviet soldiers could not make up for the Red Army's numerical inferiority in men and combat equipment.

Heavy Soviet tank losses, in conjunction with the reduction of Soviet tank output due to the relocation of production facilities, gave the fascist German army numerical superiority in tanks.

Accelerated output of combat vehicles was urgently needed so that Soviet troops could be reinforced with armor. Recourse to light tanks was dictated by the fact that such tanks could be produced comparatively easily and quickly in modified automobile plants. Accordingly, the State Defense Committee had no choice but to authorize augmented production of the light T-60 tank (soon to be superseded by the light T-70 tank), which it did at the end of 1941 as a temporary measure.

The T-60 tank had a combat weight of 6.4 tons and armor protection 15 to 30mm thick; it was armed with one 20mm gun and one 7.62mm machine gun, and had a crew of two men. The T-70 tank weighed 9.2 tons, had an armor thickness of 20 to 35mm, was armed with one 45mm gun and one 7.62mm machine gun, and had a 3-man crew. Both machines had a maximum speed of 45 km/h. Although their combat qualities were not exceptional, these tanks played an important role in the combat actions of 1941-42.

The main problem of organizing the production of medium and heavy tanks in the eastern regions of the country was also solved. By the beginning of 1942, three diesel plants, six hull plants, and eight assembly plants were in operation and gaining constant momentum."

Tank production rose considerably during the first half of 1942, in the course of which the Red Army received more than 11,000 combat vehicles. By the end of 1942, the tank industry, headed by V. A. Malyshev, gave the front 24,446 tanks of all types," whereas fascist Germany produced only 6,189 tanks during the same period." Although the light T-60 and T-70 tanks still accounted for more than 60 percent of the Red Army's tank inventory at the beginning of 1943, a significant change was quite noticeable in 1942, when the proportion of medium and heavy tanks produced reached 66 percent."

Besides being produced in greater numbers, combat vehicles improved in quality. In particular, the T-34 tank underwent a substantial modernization: the design of its armored hull was simplified; its traction was improved; and the reliability of all its subassemblies was increased.

The combat qualities of tanks improved with the advent of the cast turret. The traditional fabricated turret was vulnerable along the welded joints, which tended to crack as a result of shell impact. The cast turret

proved to be uniformly strong. Additionally, manufacture of the cast turret was made easier by the fact that it could be done in almost any steel foundry, whereas production of the fabricated turret required powerful pressing equipment.

Great difficulties were experienced by the aircraft industry. Many aircraft plants, in danger of seizure by the enemy, were rebased elsewhere. As a result, the output of aircraft dropped abruptly: whereas 2,329 were produced in September 1941, only 627 were produced in November of that year. The December plan for the production of aircraft and aircraft engines was completed only to the level of 38.8 percent and 23.6 percent respectively.²²

The People's Commissariat for the Aircraft Industry, headed by A. I. Shakhurin, achieved a sharp rise in aircraft output. The aircraft industry began series production of the Yak-1 and LaGG-3 fighters, the Pe-2 dive bomber, and the Il-2 ground-attack aircraft. Altogether, 25,436 aircraft of all types were produced in 1942.²³ The 1942 output of combat aircraft exceeded the 1941 figure by a factor of 1.8.²⁴ The more modern La-5, Yak-7b, and Yak-9 fighters began to enter service. By the end of 1942, new aircraft accounted for 71.8 percent of the Air Force's aircraft.²⁵ The Il-2 was improved considerably.

Advances in aviation technology had a great effect on the combat capability of the National Air Defense Forces. At the end of 1941, and more especially in 1942, modern fighters began to be issued for air defense purposes. There was an increase in the number of 37mm and 85mm air defense guns, and there were more large-caliber air defense machine guns. Issue of the RUS-2 and the SON-2 radars made the troops better able to combat enemy aircraft, as did the acquisition of onboard radio sets by air defense fighters.

By mid-1942, there were almost 1,200 fighters, more than 4,500 guns, and about 2,300 searchlights to safeguard the country's most important centers and regions against air raids.²⁶

It became increasingly difficult to meet the Army's requirements for ammunition of all types. Between August and November 1941 more than 300 enterprises engaged in the manufacture of ammunition were put out of commission. The disparity between the number of guns produced and the number of rounds per gun increased drastically. The party and government called upon the People's Commissariat for Ammunition, headed by B. L. Vannikov, to overcome these difficulties and to satisfy the ammunition needs of the army in the field. The effort made was successful. Whereas the 1941 output of shells and mortar bombs was 67 million, the corresponding figure for 1942 was 127 million (not counting aviation shells).²⁷

No substantial changes whatever took place in naval materiel. In 1942, shipyards set about building small naval vessels—motor launches, minesweepers, and so forth. Top-line warships began to get rocket armament. Submarines were fitted with sonar and destroyers with radar.

Despite the loss of important economic regions, the Soviet people, led by the Communist Party, had restored the lost defense production potential by the autumn of 1942. The army in the field got weapons and combat equipment on a greater and greater scale and, first of all, got the key commodities in those categories: artillery, tanks, and aircraft. During the interval from December 1941 through November 1942, the army in the field saw its inventory of these commodities rise as follows: guns and mortars, from 22,000 to 77,851; tanks, from 1,954 to 7,350; and combat aircraft, from 2,238 to 4,544.²⁸

In November 1942, the forces of fascist Germany and her allies on the Soviet-German Front had 51,680 guns and mortars (not including air defense guns), 5,080 tanks and assault guns, and 3,500 combat aircraft.²⁹

Thus, the Soviet troops had numerical superiority over the fascist German army in the main types of armament in the fall of 1942. This testified to the great potentialities of the socialist state, which, even in the most adverse war situation, could quickly restore the combat capability of its armed forces while amassing reserves.

In mobilizing all human and material resources to increase defense production and to meet the needs of the front, a major role was played by the creative activity of the workers in the rear. At the initiative of urban and village working people, the entire nation rallied in support of the All-Union Program for Socialist Competition, instituted to increase the productivity of labor. The rules for such competition were formulated by the VKP(b) Central Committee, the State Defense Committee, and the All-Union Central Trade Union Council. A procedure was established for encouraging winners, and the Challenge Red Banner was established.

A nationwide defense fund, based on private contributions of money and valuables, was founded in July 1941. At the initiative of the employees of the "Krasnyy proletariy" plant, millions of blue-collar workers, peasants, white-collar workers, scientists, and artists donated a portion of their monthly earnings to the fund. By 21 March 1942, the voluntary contributions from the country's wage earners amounted to 2,282 million rubles in cash, 1,915 million rubles in state loan bonds, 7,740 kg of silver, and 89.1 kg of gold. Collective farms and their employees contributed foodstuffs totaling tens of thousands of tons.³⁰

It became customary to collect donations to build submarines, tank columns, and air squadrons. Sending parcels of warm clothing and other

comforts to those serving at the front became widespread, and there was no shortage of blood donors. All this was vivid evidence of the paternal care and affection shown by the public for its servicemen. This was an important contribution to the development and strengthening of the Soviet Armed Forces.

The enemy had counted on disorganizing the Soviet rear, thus depriving the Red Army of necessary materiel. That hope was in vain. The Soviet Union, exploiting the advantages of a socialist planned economy, state regime, and social order, managed to solve a problem without precedent in history. In an extremely unfavorable situation, and with the loss of key industrial regions, the Communist Party managed an unprecedented maneuver of productive resources that enabled defense production to be put in order promptly. And by the time the great encounters of the war were unfolding on the approaches to Stalingrad and in North Caucasia, the Red Army was on a par with the enemy in materiel and, according to some of the most important indicators, had even surpassed him.

2. Deployment of the Armed Forces. Restructuring Command, Control, and Organization

With the onset of hostilities, large-scale measures for the strategic deployment of the Soviet Armed Forces were begun. Foremost in this context was the mobilization of those liable for military service. Units and formations were to be manned to wartime authorized strength and deployed in accordance with the mobilization plans. On the day following the outbreak of war, fourteen age groups (1905-18) were called up in all military districts except the Central Asian, Transbaykal, and Far Eastern districts.

Fascist Germany's surprise attack and rapid movement of ground forces toward Leningrad, Minsk, and Kiev disrupted mobilization in the Baltic, Western, and Kiev special military districts. Therefore, units and formations in these districts had to enter combat undermanned and poorly equipped. However, in the Leningrad and Odessa military districts, as well as in all internal military districts, mobilization and transportation of personnel proceeded in an orderly manner and according to plan.

As a result of intense work by party and state organs, and by organs of local military administration, 5,300,000 persons were called up for active service in the Armed Forces of the USSR during the first 8 days of the war. Besides, the Army received 234,000 motor vehicles and 31,500 tractors."

The border military districts were transformed into fronts. The Baltic Special Military District became the Northwestern Front (8th, 11th, and 27th armies); the Western Special Military District became the Western Front (3rd, 10th, 4th, and 13th armies); the Kiev Special Military District

became the Southwestern Front (5th, 6th, 26th, and 12th armies); the Leningrad Military District became the Northern Front (14th, 7th, and 23rd armies); and the Odessa Military District became the Southern Front (9th and 18th armies).

As in the Civil War, the front became the operational-strategic field force of the Soviet Armed Forces. It had neither a fixed numerical strength nor an organization table. The strength, composition, and organization of a front were dictated in each instance by the importance of its operational-strategic missions, by the area assigned to the front for accomplishment of these missions, by the nature of the terrain, and by other factors. Toward the end of the initial period of the Great Patriotic War, the Soviet Army's combat actions were being conducted by twelve fronts.

The General Headquarters of the High Command of the Armed Forces was created on 23 June for strategic direction of hostilities. It included J. V. Stalin and V. M. Molotov, Marshals S. K. Timoshenko, K. Ye. Voroshilov, and S. M. Budennyi, General G. K. Zhukov, and Admiral N. G. Kuznetsov. Later, the chief of the General Staff was made a member. Incumbents of this post were Marshal B. M. Shaposhnikov (10 July 1941), General A. M. Vasil'yevskiy (11 May 1942), and General A. I. Antonov (17 February 1945).

On 10 July 1941, to make easier and improve the direction of the fronts by General Headquarters, the State Defense Committee authorized intermediate command elements: the High Commands for Strategic Sectors. The High Command for the Northwestern Sector, headed by Marshal K. Ye. Voroshilov (Military Council member A. A. Zhdanov, chief of staff General M. V. Zakharov), combined the command and control of the Northern and Northwestern fronts, the Northern Fleet, and the Red Banner Baltic Fleet. The High Command for the Western Sector, headed by Marshal S. K. Timoshenko (Military Council member N. A. Bulganin, chief of staff General G. K. Malandin),* combined the command and control of the Western Front and the Pinsk Naval Flotilla. The High Command for the Southwestern Sector, headed by Marshal S. M. Budennyi (Military Council member N. S. Khrushchev, chief of staff General A. P. Pokrovskiy),† combined the command and control of the Southwestern and Southern fronts and the Black Sea Fleet.

The General Headquarters of the High Command was transformed into the General Headquarters of the Supreme Command concurrently. On 19 July 1941, J. V. Stalin was appointed People's Commissar for Defense, and on 8 August, Supreme Commander of the Armed Forces of the

*From 19 July, the staff was headed by Marshal B. M. Shaposhnikov and, from 30 July, by General V. D. Sokolovskiy.

†In March 1942, Marshal S. K. Timoshenko became commander in chief of the Southwestern Sector, and General I. Kh. Bagramyan became chief of staff.

USSR. From that time onward, the highest organ of strategic direction was called the General Headquarters of the Supreme High Command.

The main working organ of the General Headquarters was the General Staff, which got a new table of organization in mid-August 1941 to bring it into line with wartime requirements.

During the summer and autumn of 1941, certain People's Commissariat for Defense directorates were reorganized as main directorates to improve strategic direction. The General Staff was freed from administrative functions so that it could concentrate on the operational-strategic direction of the Armed Forces. In July 1941, a special group (with section status) was formed within the General Staff for liaison with the army in the field. The group was manned with command personnel on the following scale: 2 per front, 3 per army, and 2 per division.³²

In July 1941, the Main Directorate for Red Army Registration and Recruitment, headed by General Ye. A. Shchadenko, was formed within the People's Commissariat for Defense to centralize the direction of all mobilization and administrative work for the Armed Forces. It directed and monitored the creation of combined arms units and formations (except those of aviation, armor, and artillery).

The war made new demands on military training for the public as well. The former system, which consisted of premilitary training for youths and the course network of the Society for Assistance to the Defense, Aviation, and Chemical Warfare Industries, did not meet the requirements of armed conflict. Accordingly, on 17 September 1941 the State Defense Committee passed a resolution on universal compulsory instruction in military affairs for citizens of the USSR. Such instruction was introduced for all male citizens between the ages of 16 and 50 and was to be given in nonmilitary facilities, without interrupting the trainee's normal work. The instruction was given in accordance with a 110-hour program, which included drill, as well as mastery of the rifle, machine gun, and hand grenade. A considerable part of the allotted time was devoted to antichemical protection, trench digging, camouflage, and tactical training for both the lone soldier and the section.

The Main Directorate for Universal Military Training, headed by General N. M. Pronin, was created to administer public instruction in military affairs. Universal military training sections were formed in military districts and in military commissariats at the regional, territorial, and republic levels. Two or three universal military training instructors were authorized for each military commissariat at the rural district level.

A General Headquarters order dated 29 July 1941 authorized the creation of the post of commander of the Red Army Air Force, with the status

of a deputy people's commissar for defense, and also organized the Air Force Staff. First appointed commander was General P. F. Zhigarev, who was relieved in May 1942 by General A. A. Novikov. A military council was established under the commander.

During the early months of the war, important changes were made to strengthen the administrative apparatus for the branches. The post of chief of Red Army Artillery, abolished in 1940, was reinstated in June 1941. It was then filled by General N. N. Voronov.

In August and September, the posts of commander of Guards mortar units and commander of airborne forces were created and subordinated directly to General Headquarters. Their first incumbents were General V. V. Aborenko and General V. A. Glazunov respectively. The post of chief of Red Army Engineer Troops was authorized in November 1941, and then filled by General L. Z. Kotlyar.

Experience gained during the summer-autumn campaign of 1941 and the winter campaign of 1941-42 revealed the need for further improvement in the central apparatus of the Soviet Armed Forces and in the methods employed for the strategic direction of hostilities.

The high commands at the strategic sector level formed at the beginning of the war were abolished in May-June 1942 as having served their purpose. All fronts then became directly subordinated to General Headquarters.

In August 1942, General G. K. Zhukov was appointed to the newly created post of deputy supreme commander of the Armed Forces of the USSR.

The Soviet Armed Forces gained significantly in strength while being put on a war footing and during their strategic deployment. Specifically, between June 1941 and November 1942, the army in the field grew from 2,900,000 to 6,591,000 men, or by a factor of 2.3.³³

The war made necessary certain changes in the strength ratios between the services of the Armed Forces. Between June 1941 and November 1942, the size of the Ground Forces rose from 79 percent to 88 percent, while that of the Navy and Air Force diminished from 5.8 percent to 3.6 percent and from 11.5 percent to 5 percent respectively.³⁴

The organizational structure of all branches of the Ground Forces underwent a comprehensive test in severe combat conditions. The organizational changes made during the first months of the war were caused by the increase in the numerical strength of the Ground Forces, by the

heavy losses of armament and combat equipment, and by the impossibility of replacing those losses promptly.

Rifle troops underwent the greatest change. In July 1941, the rifle division's table of organization and equipment saw a considerable reduction in the authorized levels of men and equipment. In comparison with the prewar (April 1941) figures, the rifle division's numerical strength was reduced by 30 percent, its guns and mortars by 52 percent, and its motor vehicles by 64 percent. One 24-gun artillery regiment remained in the rifle division.³⁵

Toward the end of 1941, when the defense industry began to increase arms output, there was a noticeable improvement in the rifle division's firepower. This was due to an increase in the number of automatic weapons, antitank guns, and mortars and to a reduction in the strength of rear units, establishments, and servicing personnel. According to the December 1941 table of organization and equipment, the number of sub-machine guns authorized for the division was increased by a factor of almost 3.5, and the number of mortars authorized was more than doubled. The new table of organization and equipment included 89 antitank rifles, as well as antitank cannons. However, although the division's firepower gradually rose, its mobility fell noticeably. The load-carrying capacity of the division's transport equipment compared unfavorably with that of the prewar division. Even before December 1941, the rifle division could move almost all of its unit reserves in one trip with its own transport equipment. In 1942, this was no longer possible.³⁶

A substantial regrouping of rifle troops was carried out during the latter half of 1941. Between July and December of that year, 124 rifle divisions were disbanded due to heavy casualties. A total of 308 divisions were formed or re-formed during the same period, including 24 People's Home Guard divisions.³⁷

The Leningrad party organization took the initiative in the creation of the People's Home Guard, and before long it had formed 10 divisions and 14 independent artillery and machine gun battalions with a total strength exceeding 135,000 men. Their nucleus consisted of 20,000 party members and more than 18,000 Young Communist League members.³⁸

This patriotic movement rapidly spread to other cities, and first of all, to Moscow. The People's Home Guard units and formations of Leningrad, Moscow, Smolensk, Kiev, Tula, Sevastopol', Odessa, and many other cities and towns played an active part in the hostilities of 1941, when the Soviet command suffered an acute shortage of reserves. The People's Home Guard divisions became seasoned with the acquisition of combat experience, and most of them were soon reorganized into regular Red Army rifle divisions.

It took quite a long time to create a rifle division. However, the army in the field was in dire need of prompt reinforcement with fresh, trained reserves. Accordingly, recourse was had to the creation of numerous rifle brigades. This was an unavoidable, temporary measure.

The rifle brigade consisted of three rifle battalions, one artillery battalion, one mortar battalion, submachine gun companies, and units for combat and logistic support. Rifle brigades were maintained in accordance with three different tables of organization and equipment and had a strength of 4,356 to 6,000 men. By the end of 1941, there were 159 brigades.³⁹ By the spring of 1942, there were 121 brigades (including some in the ski, airborne, and motorized-rifle categories) in the army in the field alone.⁴⁰

The Soviet Guards were born in the autumn of 1941 during the fierce combat actions fought against the fascist invaders. On 18 September 1941, the 100th, 127th, 153rd, and 161st rifle divisions were renamed the 1st, 2nd, 3rd, and 4th Guards rifle divisions for their good order and discipline, valor in the attack, and fortitude in defense. The number of Guards units and formations grew considerably during the Battle of Moscow.

Further changes to the rifle division's organization and structure were dictated by the combat experience gained during the winter of 1941-42. In March 1942, each rifle battalion got an antitank rifle company, and the artillery regiment got a third 2-battery battalion (eight guns). Also authorized for the rifle division was an independent training battalion for NCO training.

The rifle division's table of organization and equipment was reviewed once again in July 1942. In comparison with the March table, the division lost in numerical strength (mainly due to a reduction in servicing personnel), but it gained in firepower. There was some redistribution of fire means within the division. The number of submachine guns was increased. Rifle companies and battalions once again got mortar units.

The main purpose of the changes made to the rifle division's table of organization and equipment was to increase the division's combat capability. The process whereby the rifle division gained in firepower was twofold. A greater number of fire means (automatic weapons, mortars, and new antitank weapons) was authorized, and there was a qualitative improvement in these weapons. Thus, the March 1942 division, with slightly greater numerical strength than the December 1941 division, had 23.3 percent more automatic weapons, 16 percent more mortars, and 37 percent more guns. By the same token, the July 1942 division, with 2,409 fewer men, kept its armament at almost the former level. For example, in the spring of 1942 the 76mm divisional cannons were replaced by improved

weapons of the same caliber, which increased the division's antitank capability considerably.

The rifle division's rear services units were reduced in number, and horse-drawn trains gradually gave way to mechanical traction.

However, the divisions on active service at the fronts in 1942 were maintained in accordance with three different tables, those of December 1941, March 1942, and July 1942. As a rule, the actual numbers of men and weapons were less than those authorized. This fault had yet to be overcome.

Significant changes also took place in the organization of the rifle brigade. In April 1942, a fourth rifle battalion was added to increase the brigade's survivability in combat. In July of the same year, the brigade's mortar battalion was replaced by a submachine gun battalion. Additionally, the brigade was reinforced with an antitank rifle company (72 rifles). As a result, the rifle brigade's inventory of automatic weapons almost doubled, that of its antitank weapons more than tripled, and there was a considerable increase in its mortar armament.

In March 1942, independent ski battalions and brigades were formed for duty in the northern sectors of the Soviet-German Front. According to its table of organization and equipment, the ski brigade was to have five ski-rifle battalions, a mortar battalion, and an antitank rifle company.

The war situation and the dearth of officers to command the newly created formations and field forces dictated temporary elimination of the corps level from the command and control structure of the rifle troops. Of the 62 corps administrations that existed before the outbreak of the war, only 6 remained at the end of 1941. The number of combined arms army administrations rose from 27 to 58. Such an army now had a limited complement (5 to 6 rifle divisions).

As the ill effects of the first months of the war were overcome, and as experience in troop management was gained, the corps level of command and control was reinstated. Twenty-eight corps administrations were formed in 1942, so that altogether by the end of the year there were 34 rifle corps, including those in the Guards category.* The summer of 1942 saw the advent of the Guards army, which, in addition to Guards rifle corps, included tank and artillery units and formations.†

With automatic weapons, tanks, and aviation reigning supreme on the battlefield, cavalry sustained heavy losses. Nonetheless, the need to

*Guards rifle corps began formation in July 1942. They differed from ordinary rifle corps in their stronger makeup."

†The 1st Guards Army was formed in August 1942.

increase the mobility and maneuverability of the Ground Forces obliged the Soviet command to make wide use of cavalry for operational purposes. However, cavalry divisions of prewar makeup proved cumbersome. In July 1941, General Headquarters decided to create light cavalry divisions of about 3,000 men. Altogether, there were 82 cavalry divisions in the Ground Forces by the end of the year.⁴²

As the army in the field became better equipped with armor, and as the number of mechanized and tank units and formations increased, the number of cavalry divisions was reduced. The horse supply problem also played a part in this reduction. The result was that the number of cavalry formations was almost halved between April and July 1942, and those that remained were put on a new organization table.⁴³

In connection with the reduction of artillery armament at the beginning of the war, General Headquarters decided to strengthen the Supreme High Command Reserve's artillery through a temporary reduction in the amount of artillery held by combined arms formations. Accordingly, the Supreme High Command Reserve got howitzer regiments from the rifle divisions and received the artillery regiments of disbanded rifle corps. At the same time, cannon and howitzer regiments were put onto reduced tables of organization and equipment, which allowed them 18 to 24 guns. Antitank artillery brigades of the prewar type (120 guns) were disbanded. They were replaced by antitank regiments consisting of 4 to 5 batteries (16 to 20 guns).

Rocket artillery units (Guards mortar units) began formation in August 1941. Altogether, by the end of the year, the Supreme High Command Reserve had 215 field artillery regiments, plus 8 regiments and 73 independent battalions of rocket artillery.⁴⁴

Concentration of a substantial number of artillery units in the hands of the Supreme High Command permitted their maneuver to reinforce the troops with fire means in the most crucial sectors of the front.

Further growth of the Army's artillery inventory, together with accrued experience in the use of artillery, called for bigger artillery formations. Supreme High Command Reserve artillery divisions (with eight regiments in each) and air defense artillery divisions (with four regiments in each) began to be formed in October 1942.

The armored forces underwent substantial organizational changes. The heavy tank losses at the beginning of the war, and the impossibility of replacing them in a short time, led to depletion of the tank inventory of the army in the field. Tanks began to be used in small groups with infantry or cavalry to accomplish tactical missions.

In July-August 1941, the mechanized corps were disbanded for want of materiel. Creation of the following tank groupings was begun concurrently: divisions (217 tanks), brigades (93 tanks), and battalions (29 tanks).

At the end of 1941, Soviet armored forces consisted of 7 tank divisions (4 of them in the Far East), 76 independent tank brigades, and 100 independent tank brigades, and 100 independent tank battalions.⁴⁵

Expanded tank production enabled the corps level to be reinstated in the armored forces' organizational structure. Tank corps began formation in the spring of 1942. Such a corps included three tank brigades, a motorized rifle brigade, a reconnaissance battalion, an air defense artillery battalion, a rocket artillery battalion, and supporting units. The corps had 168 tanks (KV, T-34, and T-70).

The 1st, 3rd, 4th, and 5th tank armies were formed in May through August 1942. Such a tank army had two tank corps, an independent tank brigade, rifle formations, and artillery and mortar units. This makeup was a result of the attempt to create a powerful field force capable not only of penetrating the enemy's defense but also of developing the attained tactical success into an operational one.

Mechanized corps began formation in September 1942. Such a corps differed from a tank corps in the possession of much motorized infantry. The mechanized corps had three mechanized brigades (each of which had a tank regiment), a tank brigade, an air defense regiment, an antitank regiment, a rocket artillery battalion, and supporting units. It was planned that the corps would have 175 tanks.

Tank groupings of the following types were formed during the latter half of 1942: the independent tank brigade (53 tanks), the independent tank regiment (39 tanks), and the independent "breakthrough" tank regiment (21 heavy tanks). Their intended role was to reinforce rifle formations.

At the outbreak of war, the airborne troops were in the formative stage in the western military districts. The situation demanded that all five airborne corps be committed to combat in the role of ordinary motorized rifle formations. This resulted in the formation of yet another five airborne corps.⁴⁶ During the second half of 1942, some of these airborne corps were transformed into Guards rifle divisions.

The temporary withdrawal of Soviet troops and the need to prepare defensive lines in the rear of the active fronts entailed the creation of engineer field forces: engineer armies. A number of such armies, each containing several engineer brigades, were formed by the end of November 1941.⁴⁷

In the spring of 1942, the engineer armies were disbanded because the dire need to prepare rear defense lines of great length had lapsed. The units and formations thus liberated were used to reinforce organic engineer units and to form Supreme High Command Reserve engineer brigades.

In 1942, specialized engineer brigades, pontoon bridge brigades, and other engineer brigades were formed for engineer support purposes. The engineer brigade consisted of 5 to 7 obstacle battalions, 1 to 2 electrical battalions, a special minelaying battalion, a detachment for electrification and mechanization of work, and other special units.

In the same year, each army at the front got an engineer battalion, a minelaying battalion, and a pontoon bridge battalion, all in accordance with a People's Commissariat for Defense directive.

The engineer support given to Soviet troops in their combat actions was improved considerably by the engineer troops' gain in numerical strength and by their acquisition of adequate engineer equipment, especially in the mine-and-explosive and water-crossing categories.

At the beginning of the war, the Soviet Supreme High Command had difficulty exercising effective command and control of the army in the field owing to the absence of reliable means of communications. The facilities of the People's Commissariat for Communications failed to meet wartime requirements. Existing lines and communications centers were extremely vulnerable from the air and were devoid of flexibility. Special army signal units had to be created to establish a dependable communications link between General Headquarters and the front. The number of routes was greatly increased by the proliferation of armies and fronts, and by the aforementioned elimination of the corps level of command. Many more signal units were needed to handle the communications on these routes.

The creation of additional signal units was hampered by a dearth of specialists, especially radio operators, and by a shortage of communications equipment. These difficulties were overcome by placing line signal units on an abridged table of organization and equipment, and by increasing the industrial output of communications equipment.

As a result of the steps taken, by the autumn of 1942 the number of signal regiments had almost quadrupled, the number of signal battalions had increased nearly fivefold, and the number of radio battalions had more than doubled.

Changes took place in the organization and outfitting of chemical troops. Independent decontamination battalions and chemical defense

battalions were formed before the war in accordance with mobilization plans. In August 1941, the Supreme High Command Reserve's decontamination battalions were reorganized as independent chemical defense battalions. Such a battalion consisted of three decontamination companies, one support company, a headquarters platoon, and a reconnaissance platoon. These battalions were capable of carrying out chemical reconnaissance and extensive decontamination work independently.

Flamethrowers and other incendiary devices showed promise in combating the enemy's tanks. The first 50 independent flamethrower companies (with 180 flamethrowers in each) were formed in August 1941. Independent flamethrower tank battalions (10 KV tanks and 11 T-34 tanks) were formed in the summer of 1942, as were independent 3-battalion Supreme High Command Reserve flamethrower tank brigades (59 tanks).⁴⁴

Against the backdrop of an austere materiel supply situation, accrued war experience pointed to the advantage of having small, but maneuverable motor transport companies and battalions rather than the existing cumbersome and unwieldy motor transport regiments and brigades. As a result of organization and establishment measures carried out in 1941, the number of motor transport battalions increased considerably.

The growing use of motor transport made new demands on road troops. The road maintenance regiment, a prewar concept, proved difficult to manage. Accordingly, such regiments were re-formed into battalions at the beginning of 1942. Dozens of additional battalions were thus forthcoming without any increase in total authorized strength. Road troops also included separate road, bridge, and carpentry battalions. Units of the Main Administration for Highways were subordinated to the Red Army Motor Transport Service.

With the onset of hostilities, railroad troops were mobilized, deployed, and brought up to authorized wartime strength. Companies were expanded into battalions, and regiments into brigades. The newly formed units were manned mainly by draftees, not more than 40 to 50 percent of whom were specialist railroadmen.

As a result of mobilization and organizational measures, substantial changes had taken place in the Ground Forces by the end of the initial period of the war. Their striking power was increased as a whole by the qualitative and quantitative growth of the armored forces, artillery, and organic air defense. For example, just during the summer-autumn period (May through November) of 1942, the number of guns and mortars (not counting 50mm) in the inventory of the army in the field rose from 44,900 to 77,800; its tank inventory grew from 3,900 to 7,350. The fact that the

proportion of combat personnel (about 62 percent) in the Ground Forces had stabilized was positive.⁴⁹

The combat experience gained during the summer and winter campaigns of 1941-42 called for substantial changes in Air Force organization. A General Headquarters letter dated 15 July 1941 noted that existing air formations were cumbersome, were ill-suited to combat involving maneuver, were not susceptible to dispersion on airfields, and were therefore extremely vulnerable to destruction while on the ground. Experience showed the air regiment (30 aircraft) and the air division (2 air regiments) to be the best organizational forms, as they were the most maneuverable and controllable in combat.

In August 1941, the State Defense Committee passed a resolution that served as a basis for the initial phase of Air Force reorganization. The corps level of command and control was eliminated from Long-Range Bomber Aviation. In frontal bomber and fighter aviation, the number of air regiments per air division was reduced from three to two. The number of aircraft in an air regiment was reduced from 60 to 63 to 32 to 33, and later, to 20.⁵⁰

Air regiments intended for nighttime missions were formed in accordance with a State Defense Committee resolution dated 1 November 1941. They were equipped with Po-2 and R-5 aircraft. Night bomber aviation was thus founded.

With the onset of hostilities, the Civil Air Fleet was subordinated to the People's Commissariat for Defense, and its flying detachments were reformed into Air Force transport and auxiliary units and formations.

Experience showed that maneuver with air power was one of the most important conditions for success in operations. However, with its men and equipment dispersed throughout the combined arms armies, the Air Force could not concentrate its efforts in decisive sectors. Besides, the division level of command and control was eliminated from front and army aviation in January 1942 in accordance with a General Headquarters directive.

General Headquarters took vigorous steps to create its own air reserves. So that Air Force efforts could be massed in decisive sectors, the State Defense Committee gave instructions that Long-Range Bomber Aviation, the air arms of the fleets, and National Air Defense fighter aviation could be called to reinforce Frontal Aviation. Reserve air groups began formation in August 1941; and air attack groups, in March-April 1942. These groups were at the General Headquarters' disposal and were used to accomplish independent missions and to reinforce Frontal Aviation.

The reserve air groups and the air attack groups, which contained 3-6 diversified air regiments, were temporary air groupings and were disbanded upon performing their assigned missions.

In March 1942, at the State Defense Committee's bidding, Long-Range Bomber Aviation was withdrawn from the Air Force, reorganized as Long-Range Aviation, and subordinated directly to General Headquarters. Its first commander was General A. Ye. Golovanov.

The bomber division became Long-Range Aviation's basic organizational entity. By the summer of 1942, Long-Range Aviation had seven bomber divisions, a transport division, and a reserve air brigade. Long-Range Aviation was reorganized so that it could be used for hitting target installations in the enemy's operational and strategic rear in a more centralized manner.

In May 1942, the State Defense Committee decided to unite the aviation of the fronts into air armies. That decision put an end to organizational splitting of aviation. The creation of operational air formations (air armies) was a milestone in the organizational development of the Soviet Air Force. It allowed the Supreme High Command and the front commands to exercise centralized control of aviation and to concentrate air forces in decisive sectors.

The Supreme High Command Reserve's air corps was considered the most suitable form for organizing air reserves, and the creation of such corps was begun in accordance with a People's Commissariat for Defense order dated 26 August 1942.

Certain shortcomings in the organization and control of the National Air Defense Forces came to light during combat actions. Control of these forces was not centralized, and air defense zones were subordinated directly to military district commanders, which complicated the organization of air cover for important regions and hampered the maneuver of men and equipment. Control of air defense fighter aviation was vested in two persons: the front's Air Force commander and the air defense zone commander.

On 9 November 1941, the State Defense Committee adopted a resolution that the air defense of Soviet territory should be strengthened and reinforced. This served as the basis for a radical reorganization of the air defense system. The post of commander of National Air Defense Forces, with the status of a deputy people's commissar for defense, was created to centralize control. General M. S. Gromadin was its first incumbent. Under the commander were a military council, a staff, a directorate for air defense fighter aviation, and a directorate for air defense artillery. Air defense units and formations were withdrawn from the jurisdiction of military districts and

fronts and subordinated to the commander of the National Air Defense Forces.

The air defense zones in the European part of the USSR were abolished but served as a basis for 2 corps air defense regions (for Moscow and Leningrad) and 13 divisional air defense regions. Three more divisional air defense regions were created during the latter part of 1941 and the early part of 1942. Air defense zones were retained, for the time being, in Transcaucasia, Central Asia, Siberia, and the Far East.¹¹

On 24 November 1941, to make more efficient use of air defense facilities, the People's Commissariat for Defense issued an order dividing air defense into air defense for the territory of the country and air defense for the armed forces.

In January 1942, fighter aviation providing air cover for important installations on a territorial basis was subordinated to the commander of the National Air Defense Forces. This permitted command and control of all arms of air defense troops to be centralized, and it also allowed more effective coordination between them.

Fifty-six airfield servicing battalions were assigned for air defense aviation support purposes, being subordinated to the respective commanders of fighter air corps, air divisions, and independent air regiments.¹²

As the air defense formations grew, some of them were accorded field force status. For example, the Moscow Corps Air Defense Region became the Moscow Air Defense Front, while the Leningrad and Baku corps air defense regions became air defense armies. At the same time, certain divisional air defense regions became corps air defense regions.

As of 1 April 1942, the National Air Defense Forces consisted of 2 air defense corps, 2 air defense divisions, 2 air defense brigades, 1 corps air defense region, 15 divisional air defense regions, 14 brigade air defense regions, 3 air defense fighter corps, 13 air defense fighter divisions, and 9 independent air defense fighter regiments.¹³

An overall trend in the organizational development of the National Air Defense Forces was the emergence of large formations and field forces that were called upon to accomplish not only tactical but also operational missions. Air defense troop command and control changed radically. Adoption of a unified air defense command simplified safeguarding rear areas against air raids and enabled better use to be made of the combat capabilities possessed by air defense personnel and equipment.

The Soviet Navy, already in a high state of combat readiness when fascist troops mounted their surprise attack, lost no time in bringing naval

units and formations up to authorized wartime strength. The Navy promptly proceeded to form new units in such categories as coastal defense, naval aviation, naval gunnery, marine engineering, medicine, hydrography, and rear services.

An important source of supplementary naval tonnage was provided by the Soviet seagoing and rivergoing shipping lines, the coast guard of the People's Commissariat for Internal Affairs, and various other government departments, whose vessels and craft were subject to requisition for naval service in wartime.

A naval shipbuilding program was planned at the beginning of the war. In July 1941, it received State Defense Committee approval for the ensuing half-year period. In August, it was amended to include the construction of large submarine chasers, gunboats, and other small naval vessels.

Forty-six new naval vessels of the basic types—a cruiser, destroyers, and submarines—had been commissioned by the end of 1941.¹⁴ By early 1942, 120 major naval vessels had been refitted in the Red Banner Baltic Fleet alone, including 1 battleship, 2 cruisers, 6 destroyers, and 35 submarines as well as about 300 motor launches and auxiliary vessels.

Organizational measures affecting the Navy were implemented with regard to the operational-strategic situation in the given theater of operations.

The Lake Ladoga Naval Flotilla, destined to play an important role in the defense of Leningrad, was formed in June 1941. In August, the White Sea Naval Flotilla was formed to safeguard sea communications in the North. The newly created naval flotillas on Lake Onega, Lake Chudskoye, and Lake Il'men' participated in combat actions in the Northwestern sector during the summer and autumn of 1941. The Volga Naval Flotilla, formed in October 1941, played an important role in training naval cadres. When the Soviet troops withdrew eastward, the Danube and Pinsk naval flotillas were disbanded.

Intensive creation of marine units and formations was undertaken in the summer of 1941 to defend naval bases and reinforce the Ground Forces. Marine recruits came from ship companies, coastal defense crews, naval schools, and from new-entry contingents. Marine brigades and battalions were armed and organized like the Ground Forces. Indeed, most marine rifle brigades formed were later integrated into the Ground Forces. For example, the Northern Fleet supplied the fronts with 16 marine formations of various types, numbering approximately 10,000 men.

Defensive regions began to be formed in maritime sectors in the summer of 1941. The first one, formed in August 1941 on instructions from

General Headquarters, was the Odessa Defensive Region. It included some units and formations from the Independent Maritime Army and some naval forces from the Black Sea Fleet. The defensive region was managed by a military council. The commander of the Odessa Naval Base was invested by General Headquarters with the command of the Odessa Defensive Region. A Sevastopol' Defensive Region was created in November 1941.

In July 1941, a seaward defense of Leningrad and the lake region was conceived to prepare the Navy to defend Leningrad. In October 1941, this defense was re-formed as the Leningrad Naval Base. With the rebasing of the Red Bahner Fleet from Tallinn to Kronshtadt and Leningrad, Kronshtadt became the main naval base of that fleet. Most warships were numbered among the forces designated for the internal defense of Leningrad.

Substantial changes to the structure of the Red Army's rear services were dictated by the war situation and by the new organization of the troops. To centralize the management of rear services, the People's Commissariat for Defense issued an order dated 1 August 1941 creating the post of chief of Red Army Rear Services, with the status of a deputy people's commissar for defense. General A. V. Khrulev was its first incumbent. Created also was the Main Directorate for Rear Services, complete with a staff, a directorate for military transportation lines, a directorate for highways, and an inspectorate. Subordinated to the chief of Red Army Services were the Main Quartermaster Directorate, the Main Fuel Supply Directorate, and the Main Military Medical and Veterinary directorates. The chief of rear services was responsible for bringing up replacement personnel and all types of materiel to the fronts, for evacuating the sick and wounded, and for recovering military equipment.

Under the main directorate were directorates for rear services at the front and army levels, each headed by the chief of rear services for the front or army in question. Such a chief had deputy commander status. The post of deputy chief of staff for rear services in combined arms staffs was abolished, as was the rear services section in staffs at the front level. This reform, whereby the organization and control of rear services, including the delivery and evacuation processes, were placed in the same hands permitted more efficient resolution of problems in the rear, allowed the materiel supply mechanism to be put in order, promoted more rational utilization of all types of transport, and ensured that personnel posted to the rear would perform their duties in a soldierly manner.

On 20 November 1941, the People's Commissariat for Defense issued an order requiring that one member of each military council at the front and army levels be made responsible for materiel supply. This member was

also responsible for coordinating the work of front or army rear services with that of local party and soviet organizations along a front.

Action was taken during the initial period of the war to improve the organization of railroad troops, road troops, motor transport troops, and other special troops and rear services. In July 1941, the State Defense Committee passed the resolution "On the Organization of a Highway Service for Paved and Unpaved Roads," which provided for the establishment by the People's Commissariat for Defense of a network of military highways linking Moscow with the fronts and with the most important industrial centers. The work of setting up this network was to be managed by the newly formed Red Army Motor Transport Directorate and by the affiliated highway sections at the front and army levels. In May 1942, the Red Army Motor Transport Directorate was reorganized as the Main Directorate for Motor Transport Service, and the front highway sections were made into directorates.

In January 1942, the State Defense Committee decided to subordinate all railroad troops to the People's Commissariat for Railroads, which was entrusted with the management of all railroad reconstruction and obstacle work.

In January 1942, to supply the army in the field with rations and forage more efficiently, the State Defense Committee decided to institute a rations service that would be independent of the quartermaster service. Accordingly, the Main Directorate for Red Army Rations Supply was created in Moscow, with affiliated rations sections at the front and army levels.

Steps were taken to improve the organization of medical services. In particular, the three types of mobile field hospitals then in use were replaced by a standardized version.

Substantial changes were made to the organization of Air Force rear services. To improve the maneuvering of Air Force units and formations, and to ensure uninterrupted support of their combat actions, by the fall of 1941 the air base level was eliminated as a superfluous, intermediate level of command and control. The fundamental element of Air Force rear services then became the aviation basing region, to which the airfield servicing battalions were subordinated. Each air regiment was to be assigned one such battalion. The post of chief of Air Force Rear Services was introduced. Its incumbent reported directly to the commander of the Red Army Air Force.

The organization of rear services for the Navy also underwent changes. In May 1942, the Main Directorate for Ports became the Main Directorate for Navy Rear Services, which arranged the supply of naval stores,

organized transport and evacuation, and supervised the management of naval harbors and auxiliary vessels. The post of chief of Navy Rear Services was created, with the status of a deputy people's commissar of the Navy. Corresponding posts were introduced in fleets and flotillas.

The new command and control structure for the Armed Forces' rear services justified itself and remained virtually unchanged until the end of the war.

With the onset of hostilities, the organizational development of the Border Troops was subordinated to supporting combat actions against the fascist German invaders and to providing reliable security along the state border. The demands imposed by these two missions dictated substantial changes both to the organizational structure of the Border Troops and to their command elements.

In accordance with a Council of People's Commissars resolution dated 25 June 1941, the Border Troops and other troops under the People's Commissariat for Internal Affairs who were in the combat zone were required to safeguard the rear area of the army in the field. Troop management for that purpose was provided by the Main Directorate for Border Troops and by the various directorates for front service area security, which were set up on the basis of the border military district directorates.

During the initial period of the war, the organizational structure of the troops entrusted with the security of the rear area of the army in the field varied according to the number of fronts, their composition, and other factors. As a rule, however, several units were assigned to guard the rear area of a front, whereas one regiment, and sometimes even an independent battalion, was deemed adequate for an army's rear area.

The troops safeguarding the rear area of the army in the field still belonged to the People's Commissariat for Internal Affairs, but they were subordinated to a combined arms army commander or to a front commander in operational and routine matters.

A number of the units and formations of the army in the field were manned from the Border Troops. For its part, the coast guard turned over approximately 11,000 men and 368 vessels to the Soviet Navy, including the Leningrad Coast Guard School, three schools for petty officer specialists, eight detachments and four independent divisions of coast guard ships, and numerous motor launches and auxiliary vessels.

In June 1941, the State Defense Committee called upon the People's Commissariat for Internal Affairs to form 15 rifle divisions. This brought the appointment of 1,500 command and supervisory officers to each such

division, these men coming from the Border Troops and other troops under the People's Commissariat for Internal Affairs. During July and August 1941, three rifle divisions were formed from the 6th, 7th, and 8th border detachments, special units of the Leningrad Border District, and other troops under the People's Commissariat for Internal Affairs. These rifle divisions, as components of the Leningrad Front, fought on the near approaches to Leningrad throughout the entire period of the blockade. In August 1941, one rifle division was formed from the 23rd, 24th, and 25th independent border commands, the Odessa Border Detachment, and other units. This division participated in the defense of the Crimean Peninsula.

The Council of People's Commissars of the USSR issued a resolution, dated 25 June 1941, on troop units of the People's Commissariat for Internal Affairs detailed to safeguard railroad works and key industrial enterprises. The resolution decreed that when such units were located within the boundaries of a front, they were to be subordinated operationally to the chief of rear area security for that front.

The Internal Troops were formally transferred to the People's Commissariat for Internal Affairs at the beginning of 1942. These troops did garrison duty in liberated Soviet towns, fought enemy assault forces, and waged a campaign against bandits, traitors, and foreign agents. Some units fought in the front line against fascist German troops. The Main Directorate for Internal Troops (formerly operational) was formed at the end of April 1942. Later, it was expanded by the creation of a directorate for troops of the People's Commissariat for Internal Affairs assigned to safeguard the rear area of the army in the field. In May 1943, this directorate was made an independent main directorate. The People's Commissariat for Internal Affairs gave the army in the field about 75,000 men in 1942. Besides, the 70th Army, which went to the front at the beginning of February 1943, was made up of Internal and Border Troops."

Thus, the problem of military organizational development had high priority during the initial period of the war. In the face of a military situation extremely unfavorable for the Soviet Union, large-scale measures made it possible to deploy the Armed Forces, rebuild their system of management and control, and organize hundreds of new formations. Mobilization was conducted on a gigantic scale unprecedented in Soviet military experience.

The Communist Party deserved the greatest credit for promptly supporting and developing the initiative of the Soviet people (who launched a vigorous campaign in the enemy's rear area), for correctly defining the missions of the partisan movement, for finding the necessary organizational forms for the masses, and for indicating the ways and means to be used in the struggle against the fascist German occupiers. Establishing links between the partisan movement and the combat operations of the

regular Armed Forces became one of the most important goals of military organizational development.

Guidelines for organizing the partisan campaign were formulated in a 29 June 1941 directive issued by the VKP(b) Central Committee and the Council of People's Commissars of the USSR. On 18 July 1941, the Central Committee adopted the special resolution "On Organizing the Struggle Behind German Lines." Underground party organs were created in the enemy's rear area to give direction to the partisan movement. Partisan detachments and groups were formed, and they established contact with units of the army in the field. Hundreds of thousands of Soviet citizens rose to the occasion, participating in the campaign being waged behind enemy lines.

To strengthen the direction of the partisan movement, and to ensure that partisans received constant tangible aid, the Central Headquarters of the Partisan Movement was created and subordinated to General Headquarters in accordance with a State Defense Committee resolution dated 30 May 1942. Secretary of the Central Committee of the Belorussian Communist Party P. K. Ponomarenko was appointed its first chief of staff. Partisan staffs were attached to the military councils of a number of fronts. In the autumn of 1942, the partisan staffs (except the Leningrad staff) were reformed as front delegations of the Central Headquarters of the Partisan Movement, and each republic got its own partisan staff to direct the struggle throughout the various republics.

Centralizing the direction of activities by partisans and members of underground organizations permitted their efforts to be united and coordinated in the accomplishment of missions designed to aid the Soviet Army's combat actions. The partisan movement became so effective that it exerted a strong influence on the fighting on the Soviet-German Front.

The magnitude of the partisan movement may be judged from the fact that by December 1942 there were already 1,013 partisan detachments, with a strength exceeding 97,300 men. The fascist German command was forced to use as many as 24 divisions to combat them."

The Soviet government focused a great deal of attention on foreign military formations by helping them to train on Soviet soil and by providing them with arms and equipment. For example, a 6-division Polish army with a strength of 75,000 men was formed between September 1941 and February 1942 on the basis of a negotiated accord. Unfortunately, these divisions never fought on the Soviet-German Front. The Polish army was sent to Iran in the summer of 1942 at the insistence of the emigre Polish government in London. An independent Czechoslovak infantry battalion began formation at Buzuluk in December 1941." A Franco-

Soviet agreement was signed in November 1942 allowing French air force pilots to fight on the Soviet-German Front.

3. Changes in Cadre Training. Building Up Combat Experience and Strengthening Morale

The war promptly began to take its toll of command and supervisory personnel, and they were very difficult to replace. At the outset, the cadre losses were replaced mainly from the reserve. About 75 percent of all officers on the reserve list at the beginning of the war were called up in 1941.

However, calling up reserve command and supervisory personnel could not fully meet the needs of the Army and Navy. Permanent sources of trained cadres had to be sought elsewhere. The network of military educational institutions set up before the war played a great part in helping to supply cadres for the army in the field. At the same time, however, specific wartime conditions dictated a number of changes in the military educational system.

On 16 July, the State Defense Committee passed the resolution "On Cadre Training Within the System of the People's Commissariats for Defense and the Navy." This resolution played an important role in reorienting the instruction and indoctrination of cadres to meet the needs of the front.

Complying with the Central Committee's instructions, the People's Commissariat for Defense formulated a training plan for command and supervisory personnel that provided for an increase in the number of military educational institutions and in their individual enrollments, for the accelerated graduation of cadets and officer candidates from such institutions, and for the streamlining of study programs to permit such acceleration. The plan also set up courses of the following durations: in military schools, 4 to 10 months; in military academies, 6 to 8 months; and in academies for special branches and the services of the Armed Forces, 8 to 12 months.

Early in the war, the network of military educational institutions for command and technical officer training was expanded considerably. As a result, the number of schools for the Ground Forces rose from 138 to 164, while their authorized student enrollment increased by 67 percent. The number of Air Force educational institutions diminished somewhat, but this was offset by an 11 percent increase in the authorized enrollment of those that remained. The number of Navy schools and their authorized strength remained unchanged. All military schools in threatened areas were moved to internal zones. By the end of 1941, some 534,500 persons

were studying at military educational institutions or in various supervisory courses.⁵⁸

In October 1941, courses for the rank of junior lieutenant were instituted at the army level. Enlisted men who had distinguished themselves in combat were eligible for enrollment in such courses and, upon graduation, were made rifle platoon leaders.

The network of advanced training courses for command personnel of various branches underwent considerable expansion. By the end of 1941, 17 more courses of this type had been organized. Besides, 11 military academies had set up 3-month courses for turning draftees with a higher education into commanders. In November 1941, courses affiliated with *Vystrel* [a higher officers' school—U.S. Ed.] were formed in 6 military districts for training rifle company commanders.⁵⁹ During the second 6 months of 1941, military educational institutions and courses trained more than 192,000 commanders for every branch and sent them to the troops.⁶⁰

Fifty-three new military schools were opened during February-April 1942, and courses for the rank of junior lieutenant were instituted within each front and military district. Training courses for artillery command personnel were instituted in March of that year.

All these measures permitted the scale of officer training to be increased considerably. In 1942, military schools and courses graduated more than 564,000 command and supervisory officers.⁶¹

The Central Committee and the Soviet government passed a number of resolutions aimed at greater efficiency in distributing cadres, conferring them with rank, and decorating them for gallantry.

By a decree dated 18 August 1941, the Presidium of the USSR Supreme Soviet empowered a military council at the front level to confer military ranks up to and including major, battalion commissar, or equivalent, and empowered a military council at the army level to confer military ranks up to and including senior lieutenant, political instructor, or equivalent. By virtue of decisions made by the State Defense Committee at the end of 1941 and the beginning of 1942, reduced periods of time in grade between promotions were authorized for commanders and chiefs in the Army and Navy. Military councils were empowered to confer ranks within their prerogative in individual cases where there was special merit.

In September 1941, the chiefs of the main directorates of the People's Commissariat for Defense were empowered to make appointments to posts up to the regimental commander level, inclusive. Subsequently, the powers of appointment possessed by military councils at the front

(military district) and army levels were broadened, as were those possessed by corps commanders, division commanders, and regimental commanders. Similar powers were conferred on the corresponding command levels in the Navy, Air Force, and National Air Defense Forces.

In October 1941, the right to award decorations and medals in the name of the Presidium of the USSR Supreme Soviet for valor in the field or afloat was conferred on military councils at the front and fleet level. In 1942, that right was extended to military councils at the army and flotilla level, and to corps, division, brigade, and regimental commanders.

All of these measures significantly accelerated the promotion of command and supervisory personnel, and they also contributed to the rapid growth of young, capable cadres. Units and formations of the army in the field got the required numbers of trained commanders and political workers.

The hardest and most diversified school for cadres became the war itself. In the fire of fierce encounters, Soviet commanders strengthened and sharpened their combat skills, gained experience in command and control, and learned to beat the enemy soundly.

From the first days of the war, the Central Committee and the Soviet government called upon command cadres to master the art of war, to steel their will, and to skillfully use their accrued knowledge and combat experience to stem the enemy's onslaught. The essential tasks of the Armed Forces were to exhaust, bleed, and stop the advancing enemy, secure a change in the situation, and create the necessary conditions for destroying him. At this time, the Red Army's principal mode of warfare was strategic defense combined with obligatory withdrawal into the interior. The Armed Forces waged such warfare for almost 11 months in a difficult military and political situation.

The Soviet strategic leadership encountered a phenomenon new to the art of war. It had to direct defensive operations fought by several fronts, not just by one, as had been assumed before the war. Each front had to accomplish a partial mission within the overall strategic defensive operation. These operations had to be accomplished in several sectors simultaneously, according to a single concept, and under the direction of General Headquarters. The conduct of strategic defense consisted in waging sustained defensive actions by fronts or by groups of fronts on a number of lines. Such actions demanded a sustained defense skillfully combined with counterblows and local offensive operations by fronts and armies. In a number of instances, their successful application led to stabilization of the front and to the destruction of large enemy groupings. Strategic defensive operations measured 500 to 800 km in width and 150 to 500 km in depth.

The Soviet command became adept at organizing and conducting defensive operations by an army or front. Characteristically, in the operational defense, the zone of a front measured 350 to 600 km, whereas that of an army resisting on a main axis measured 50 to 70 km. Due to lack of men and equipment, the depth of defense deemed desirable according to prewar doctrine was unattainable. Virtually all available men had to be put into the first operational echelon, a negligible proportion being kept in reserve. In 1941, the depth of defense was 15 to 25 km for an army and 30 to 35 km for a front. Preparation of defense zones by engineer work was also inadequate. Only the main defense zone was fully prepared. In the depth of an army's defense only designated sectors were prepared by engineer work. The stability of the operational defense was diminished by its shallow structuring.

As the fronts and armies became stronger, and as the command became more skilled, the planning and conduct of defense improved. This was reflected in the massing of men and equipment on decisive axes, in the augmented depth of troop formations, in the increase in operational density, and in the greater stability of the defense as a whole. The depth of an army's defense reached 20 km; the average operational density reached 10 km for a rifle division; and the artillery density reached 15 to 25 guns per kilometer of front.

The command cadres acquired greater skill in the art of organizing anti-tank defense. Whereas at the beginning of the war antitank means were mostly distributed uniformly along the front, this shortcoming was subsequently eliminated. Increasing use was made of aircraft and large-caliber artillery to combat enemy tanks, and artillery began to be massed on decisive axes. There was a trend toward greater depth in antitank defense.

At the beginning of the war, there were instances of miscalculation in the use of armored forces, and this had a negative effect on the stability of the defense. From the summer of 1942 onward, the Soviet command made wide use of tank corps and tank armies in defensive operations, which increased the vigor and stability of the defense considerably.

Improving the art of employing engineers effectively was of great importance for the firmness of the defense. In November 1941 the People's Commissariat for Defense issued an order calling for a better understanding and appreciation of engineer work by commanders, staffs, and troops, and stressing the need for centralized control of engineer troops and for their concentration on decisive axes.

In the defensive operations of 1941, aviation was at the disposal of army and front commanders, which hampered its massed employment. From the spring of 1942 onward, when control of aviation was confined to front

commanders, its massed use against advancing enemy groupings became more skillful.

During the initial period of the war, defensive tactics were characterized by a trend toward greater stability of units and formations in defense. This was due in large part to increased combat experience and to better organizing ability at all levels of command in the tactical domain. The one-echelon combat formation used during the summer and autumn of 1941 was replaced by a two-echelon formation in 1942. The width of a rifle battalion's defense zone diminished from 4 to 5 km at the beginning of the war to 2 to 3 km by the end of 1941. Engineer preparation of defensive positions was improved in method and expanded in scale. There was begun a transition from separate entrenchments to continuous trenches with interconnecting communication trenches.

The art of using artillery and tanks in combined arms defensive combat underwent improvement. Massed artillery fire was promoted as a very important means of repelling the enemy's infantry and tank attacks. Defensive combat came to be characterized by a high degree of aggressiveness, manifested primarily in the mounting of counterattacks and in wide maneuver by men and equipment during an engagement.

The tenacity and aggressiveness displayed by Soviet troops in encounters grew steadily. Whereas at the beginning of the war the enemy made good 30 km or more in a day, by the autumn of 1941 and the summer of 1942 his rate of advance had dropped to a few kilometers daily.

During the winter campaign of 1941-42, the Soviet Armed Forces got their first experience in planning and mounting a counteroffensive. It was accomplished with limited scope for troop maneuver and without overall superiority in men or equipment. The main strike was dealt by the forces of the three fronts in the western sector.

Soviet military cadres gradually gained experience in organizing and conducting offensive operations. The zone of advance measured 300 to 400 km for a front and 20 to 80 km or more an army. Skill in the art of massing men and equipment was acquired by the command. At the beginning of the war, men and equipment were distributed uniformly when going over to the offensive. The breakthrough area was not precisely defined. However, at the beginning of 1942, and especially after a General Headquarters directive of 10 January regarding assault groups, an endeavor to concentrate men and equipment on the axes of the main thrusts became noticeable. The width of the breakthrough area in the zone of advance was designated as up to 30 km for a front and up to 15 km for an army. This permitted a gradual increase in operational density, especially in artillery density. Between the autumn-winter campaign of 1941 and the summer of

1942, the artillery density rose from 7 to 12 to 45 to 65 guns and mortars per kilometer of front.

Due to lack of men and equipment, a front usually assumed the offensive as one echelon with a reserve (2 to 4 divisions). An army usually had two echelons. During the offensive operations fought in the spring and summer of 1942, the Soviet command and troops got their first experience in using mobile formations (tank and cavalry corps) as an echelon for exploiting the success of an army or front. Accrued experience in the use of tanks was generalized in a People's Commissariat for Defense order dated 16 October 1942. This order set forth the basic principles underlying the use of tank units and formations in engagements and operations.

Commanders gradually became adept at massing men and equipment on the axes of the main strike. Between the winter campaign of 1941-42 and the summer engagements of 1942, tactical densities per kilometer of the offensive front increased as follows: from 1 to 2 to 2 to 4 rifle battalions, from 20 to 30 to 50 to 90 guns and mortars, and from 2 to 3 to 10 to 14 tanks. The use of artillery became more diversified. Besides conducting artillery preparation, it supported attacks mounted by infantry and tanks and accompanied them into the depth of the enemy's defense. Transition to the tactic of the artillery offensive was an important advance in planning and conducting offensive combat.

Soviet Air Force cadres acquired diversified experience by supporting troops at the front who were conducting defensive and offensive operations. From month to month, the Ground Forces received more and more air support, which increased their firmness in defense and their success when on the offensive.

With the creation of air armies and Supreme High Command Reserve air formations, Soviet aviation began to be used in mass formations in decisive sectors. In the process, the most effective form of aviation combat employment in offensive operations was found, which assured continuous air action against the enemy. This form was fixed officially in the 1942 Red Army Infantry Field Manual by the concept of the "air offensive." Soviet aviation gained experience in delivering strikes against the enemy's operational reserves. In a number of cases, these actions constituted independent air operations.

As aviation technology improved in quality and gained in quantity, there was a corresponding improvement in the tactical skills of aircrews and command personnel of units and formations in all branches of the Air Force.

The National Air Defense Forces, together with the Soviet Air Force, prevented the destruction of Moscow and other large administrative and

industrial centers, while successfully providing air cover for blockaded Leningrad. These feats testified to the fact that the air defense and Air Force commands were becoming versed in operational art and that fighter-aviation officers and air-defense artillery officers were acquiring greater tactical expertise.

Soviet Navy command personnel gained no little combat experience. Naval units and formations fought side by side with the Ground Forces in river, lake, and sea sectors, accomplishing missions related to holding naval bases and insular regions, and making amphibious landings and protecting the maritime flanks of ground troop units. Naval personnel in general, and naval officers in particular, became skilled in safeguarding shipping and in disrupting the enemy's sea communications.

The war made new and higher demands on the moral and spiritual qualities of the Soviet serviceman. This circumstance altered the nature, forms, methods, and conditions of party-political work. Coming to terms with the changed conditions, the Communist Party was guided by words spoken by V. I. Lenin in July 1918: ". . . We are fighting a war, and the fate of the revolution will be decided by its outcome. That must be the first and last word of our campaign, of all our political, revolutionary, and reorganizational activity."²

The Central Committee made a great effort to restructure the party-political apparatus, which was brought into line with wartime requirements. No effort was spared to explain to Army and Navy personnel the just, emancipatory goals of the Great Patriotic War and the anticommunist essence of German fascist ideology. Soviet servicemen were called upon to strive selflessly to liberate their native land from the hateful invaders.

The Communist Party, having become a truly militant party with the start of the war, subordinated its political, administrative, and indoctrination activity to the war effort, reallocated its forces, and sent its best members into the Army and Navy.

In accordance with a Central Committee decision, the following were called up during the initial period of the war to direct party-political work in the military: 500 secretaries of district, municipal, regional, and territorial committees, and of union-republic party central committees; 270 executives of the VKP(b) Central Committee apparatus; and 1,265 workers at the district and regional levels who were appointees of the VKP(b) Central Committee's *nomenklatura*.^{*} About 2,500 qualified party

^{*}[*Nomenklatura*—A party-run system for appointing capable, politically trustworthy people to important political and public positions. See *The Cambridge Encyclopedia of Russia and the Soviet Union*, ed. Archie Brown et al., (Cambridge: Cambridge University Press, 1982), p. 301—U.S. Ed.]

workers who had taken Leninist courses or had studied at the Higher School for Party Organizers or at the Higher Party School were placed at the disposal of the Red Army's Main Directorate for Political Propaganda.

However, the reserve of supervisory political workers was soon exhausted. The demand for such workers was aggravated by the creation of new units and formations and by casualties at the fronts. Yet as a result of the steps taken by the VKP(b) Central Committee, during the first 6 months of the war the Army and Navy got about 8,800 supervisory party workers and 100,000 political workers, of which 60,000 were party members and 40,000 were Young Communist League members. Altogether, more than 1,100,000 party members poured into the Armed Forces' party organizations during the first six months of the war."

On 16 July 1941, the Presidium of the USSR Supreme Soviet issued the decree "On Reorganizing Political Propaganda Organs and Introducing Military Commissars Into the Workers' and Peasants' Red Army." This decree contained the observation that the expanding volume of political work and the growing complexity of the commander's duties "dictated a greater role and more responsibility for political workers, in the manner of what took place during the Civil War against foreign military intervention."

An extremely important practical measure aimed at increasing the role and responsibility of political workers was the reorganization of political propaganda directorates and sections as political directorates and sections, a move which considerably broadened the activity of political workers. The main thrust of political work was to motivate personnel to accomplish their combat missions. Using the entire rich arsenal of aids to ideological and organizational work, political organs aroused and inspired the servicemen to repulse the fascist aggressors and to obey their officers' orders in an irreproachable manner. Political workers paid increased attention to strengthening their party organizations and to increasing their dynamism and their ideological and organizational influence on the ordinary soldier.

Another measure of importance was the appointment of military commissars to Red Army regiments, divisions, staffs, military educational institutions and establishments, as well as the appointment of political instructors to rifle companies, cavalry troops, batteries, and battalions. The introduction of the military commissar did not detract from the commander's leading role, nor did it diminish the commander's responsibility to party and state. It also did not weaken the unity of command principle. The commander found in the person of his commissar an assistant who could be relied upon to render loyal service in a wide variety of roles. The commissar strengthened the commander's authority, strictly monitoring compliance with his orders and instructions. Together with the commander he bore full responsibility for the military unit's accomplishment of the com-

bat mission, for its staunchness in combat, and for its unshakeable readiness to fight to the last drop of blood against the enemies of the Motherland, defending with honor every inch of Soviet soil.

The military commissar directed the unit's political organs and its party and Young Communist League organizations, implanting revolutionary order and military discipline. He praised and popularized the best soldiers and commanders, inculcating in all personnel the virtues of valor, boldness, equanimity, initiative, resourcefulness, and disdain for death. A resolution on RKKA military commissars stated: "The military commissar must inspire the troops to fight the enemies of the Motherland. In the most crucial moments, he must raise the unit's morale by setting a personal example of valor, thus ensuring categorical compliance with the operation order."⁶⁵

The restructuring of the Red Army and Navy political apparatus played a great part in strengthening them further, as well as in promoting intensified and effective party-political work. Foremost in such work was the endeavor to make sure that party and Young Communist League members played a leading role in combat, thus increasing the combat efficiency of the troops.

Amendments were made to certain statutes of the VKP(b) rules in the interest of strengthening party organizations and increasing their role in the accomplishment of combat missions. In battle, the servicemen vividly displayed their boundless love for the Motherland and their infinite dedication to the Communist Party and the Soviet people. Many sought admission to the party on the eve of a combat assignment, asking to be counted as party members should they perish. However, the conditions for party admission as laid down in the party rules had been prescribed with peacetime in mind, so that they inhibited the party's growth and hampered replacement of casualties suffered by its organizations.

On 19 August 1941, the VKP(b) Central Committee decided to change the conditions for admission to the party. A serviceman who had distinguished himself in combat could be admitted to the party on the recommendation of three members having a year of party service, even if they had known the nominee as a co-worker for less than a year. A VKP(b) Central Committee resolution dated 9 October 1941 permitted an Army party organization to admit distinguished soldiers to the party upon expiration of a 3-month candidacy period.

VKP(b) Central Committee resolutions accelerated the growth of party organizations in units of the army in the field. At the end of 1941, there were 1,234,000 party members in the Armed Forces. In other words, two-fifths of the party membership saw active service at the time.⁶⁶ Almost every second party member fought at the front in the Great Patriotic War.

By their personal example of courage and heroism, party members inspired the troops to perform heroic feats in the struggle against the enemies of the Motherland.

The number of primary party organizations rose. By the end of 1941, there were over 26,200 such organizations in the Red Army and Navy—twice as many as before the war.⁶⁷

On 23 June 1941, the Red Army's Main Directorate for Political Propaganda issued the directive "On the Content of the Division, Army, and Front Presses." The directive required that the military press give the Soviet serviceman a profound understanding of his duty as a defender of the Motherland and motivate him to struggle selflessly against the Hitlerite invaders. The directive required commanders and political organs to conduct all party-political work under the Central Committee's slogan, "Our Cause Is Just! The Enemy Will Be Beaten! Victory Will Be Ours!"

Commanders and political workers, together with party and Young Communist League activists, explained to personnel the steps taken by the party and government to increase the output of weapons and combat equipment, and they also publicized the labor heroism of the Soviet people and the successes of the engineers and designers who produced new types of arms and munitions for the front. Every effort was made to provide the servicemen with technical specifications for the enemy's arms and combat equipment, as well as the measures to be taken against them. In many units and formations, demonstration firings were conducted with captured samples of enemy combat equipment.

For example, in August 1941 the military council for the Western Front arranged for practice firings to be conducted in a specified unit, using Soviet 45mm cannons and antitank rifles against captured enemy tanks. The results of those firings, together with practical advice, were presented by the front commander in an order entitled "On Combating the Enemy's Tanks," and they were studied by all personnel. The order pointed out the vulnerable places on the fascist tanks, advising what type of weapon to use against them and from what range to open fire."

Generalization of the experience of top marksmen and its dissemination throughout the army in the field contributed to the rapid growth of the sniper movement on all fronts. Disclosing the "secrets" of marksmanship, commanders and political workers, agitators and propagandists, as well as the army and front presses, motivated Soviet servicemen to attain a high level of military proficiency. Their appeals struck a sympathetic chord in the hearts and minds of thousands of patriots. Many soldiers kept personal score of the number of enemy officers and men they killed.

A central place in party-political work was accorded to propagandizing feats of heroism. Such feats represented the epitome of moral-political conditioning, selfless devotion to military duty, the will to win, and consummate military expertise. Disclosing the moral-political content of feats of heroism, political workers and party and Young Communist League activists adeptly cited vivid examples of fortitude and valor in combat, calling upon servicemen to emulate the heroes.

Meetings with distinguished fighting men were arranged in many units. Wide recourse was also had to gatherings of experienced soldiers. Such gatherings culminated, as a rule, with the adoption of an appeal to all servicemen.

In widely publicizing feats of heroism, commanders, political workers, the front press, and the central press did not merely give the selfless and courageous heroes their due. They also called upon millions of men to follow their example and to be loyal to the ideals for which the heroes shed their blood and gave their lives. And this turned heroism into a truly mass phenomenon. It gave the servicemen a sense of moral superiority over the enemy.

Much was done to inculcate a feeling of intense hatred toward the fascist German invaders and to expose the misanthropic essence of fascism. On 9 August 1941, the VKP(b) Central Committee passed a resolution on special correspondents of the central daily newspapers and the news agency TASS at the front. The resolution required all newspaper editorial staffs and war correspondents to pay special attention to gathering and publishing material on Hitlerite atrocities and plunderings on occupied territory. Soviet writers, publicists, poets, and artists responded ardently to this party demand.

The bestial visage of the fascist soldier was exposed by the works of the writers M. A. Sholokhov, A. N. Tolstoy, A. P. Dovzhenko, and F. N. Panferov, the artists Kukryniksy and B. Ye. Yefimov, and many others. Their works engendered hatred toward the Hitlerite invaders in the hearts of Soviet officers and soldiers alike. Motivated by these works of art, the Armed Forces strove to safeguard the Soviet people from the horrors of fascist slavery and fought more stubbornly to defeat the enemy.

Subordinating political indoctrination work to the missions of the armed conflict, commanders and political workers, party and Young Communist League organizations incessantly enriched its ideological content, inculcating in servicemen feelings of Soviet patriotism and proletarian internationalism.

The restructuring of the Red Army and Navy's political organs and party-political apparatus, carried out during the latter half of 1942, played

an important role in improving the morale and fighting strength of the troops. On 12 June, the Central Committee discussed the state of party-political work in the army in the field. The Central Committee decided to appoint its own secretary, A. S. Shcherbakov, a candidate for Politburo membership, as chief of the RKKA's Main Political Directorate. The Directorate for Agitation and Propaganda was created within the Main Political Directorate to strengthen the management of its agitational and propaganda work.

In July 1942 the Military-Political Propaganda Council was formed under the RKKA's Main Political Directorate to improve party-political work among the troops. An important mission of the council was to generalize experience of political indoctrination work and to develop ways to further improve it. Groups of organic and supernumerary propagandists and agitators were formed. Agitator positions were authorized in the political sections of divisions and regiments.

During the heavy fighting that characterized the initial period of the Great Patriotic War, Soviet command cadres got considerable experience in planning and conducting modern engagements and operations, thereby gaining in military and political stature. Good political and military training enabled commanders to become rapidly oriented in a complicated combat situation, to manage combat operations competently, and to make bold decisions and implement them resolutely. Commanders also acquired the necessary experience in indoctrinating their subordinates. In these circumstances, the need for the institution of military commissars lapsed. Accordingly, the Presidium of the USSR Supreme Soviet issued a decree, dated 9 October 1942, whereby that institution was abolished in the Red Army. The provisions of the decree were extended to the Red Navy and troops under the People's Commissariat for Internal Affairs on 13 and 15 October 1942.

With the introduction of full unity of command, the role of party-political work became even more important. The military commissar was replaced by the political officer of the unit or formation. His function was to improve the political indoctrination of personnel and to increase the ideological and organizing influence of party and Young Communist League organizations on the mass of servicemen.

In organizing political indoctrination work, the VKP(b) Central Committee recommended to political organs that consideration be taken of the diverse ethnic background of Army and Navy personnel. In September 1942, the RKKA's Main Political Directorate issued the directive "On Indoctrination Work With Red Army Soldiers and Junior Commanders of Non-Russian Nationality." This directive called for better indoctrination of servicemen in the spirit of friendship between the peoples of the USSR; for more persistent explanation to non-Russian soldiers of war aims and

of the Red Army's emancipatory mission; and for popularization of feats of heroism performed by officers and servicemen of the non-Russian nationalities. To implement this directive, a special group was formed within the Directorate for Agitation and Propaganda under the RKKA's Main Political Directorate. The group was charged with publishing military literature in the languages of the non-Russian peoples of the USSR. Besides, the political directorates of fronts began to publish daily newspapers in these languages.

A new statute authorizing the presentation of banners to Red Army units and formations in the name of the Presidium of the USSR Supreme Soviet was enacted at the end of 1942. Such presentations strengthened troop morale.

The following decorations were established in 1942 for presentation to servicemen who distinguished themselves in combat: the Order of the Patriotic War, the Order of Suvorov, the Order of Kutuzov, and the Order of Alexander Nevskiy.

In accordance with instructions issued by the Central Committee and the Soviet government, an intensive combat training program was conducted by front and army commands and by the commanders of units and formations. In a People's Commissariat for Defense order dated 1 May 1942, Army and Navy personnel were required "... to study military affairs and study diligently, thus becoming masters at arms and masters of military affairs, able to defeat the enemy without fail."

The organizing and motivating role of party-political work was especially telling during the period of the Red Army's failures and forced retreat. The large-scale ideological indoctrination work and rallying measures carried out at that time were instrumental in ensuring an orderly withdrawal, the maintenance of discipline, good organization, combat efficiency, and the infliction of maximum losses on the enemy.

Much effort was expended to explain the requirements of People's Commissariat for Defense Order No. 227, dated 28 July 1942, which harshly condemned the "mentality of retreat" and called for a resolute uplift of fighting spirit and a consolidation of good order and military discipline. The slogan of the order, "Not One Step Backward!", and the measures adopted to enforce it were made well known to every soldier.

Party members set an example of obedience to the demands of party and government. Serving in the most rigorous sectors, they took it upon themselves to perform the most complex and crucial missions. By virtue of their inspiring words, valor, fortitude, and readiness to shed their last drop of blood in defense of the Motherland, the members of Lenin's party

won the ardent admiration and respect of all other Army and Navy personnel, and served as their cementing, bonding force.

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The first year and a half of the Great Patriotic War was the hardest for the Soviet state and its Armed Forces. Fascist Germany's treacherous attack on the Soviet Union put the Red Army at a severe disadvantage, obliging it to withdraw into the interior while offering stiff resistance. The difficulties were aggravated because the Red Army's reorganization and rearmament programs were unfinished. This left its imprint upon the course of military operations and upon the organizational development of the Army and Navy.

By the autumn of 1942, the Soviet Armed Forces were experienced and battle-hardened. Their command personnel had acquired considerable skill in the direction of combat actions on land, at sea, and in the air. Certain prewar notions had been reexamined, and those that were outmoded or obsolete had been discarded. New solutions had been found for the basic problems of the Armed Forces' organizational development. These solutions were to undergo further modification and improvement as the war continued.

The Communist Party and the Soviet government did an immense amount of military administrative work to turn the country into a unified armed camp and to deploy the Armed Forces and improve their organization, moral-political state, and materiel. All this work was aimed toward performing the main military-political mission: to repulse the enemy's attack. The Red Army and Navy, having surmounted incredible difficulties, accomplished that mission. By the autumn of 1942, the necessary conditions had been created for a decisive turning point in the Great Patriotic War and in World War II as a whole.

Notes

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2. Lenin, XI, 117.
3. L. I. Brezhnev, *Leninskim kursom. Rechi i stat'i* [Following Lenin's Course: Speeches and Articles] (Moscow, 1976), V, 288.
4. *CPSU on the Armed Forces*, p. 300.
5. *CPSU History*, V, Bk. I, 164.
6. *Ibid.*, p. 293.
7. *Ibid.*, p. 288.
8. Table 5 based on *World War II History*, III, 376; IV, 157; VI, 341.
9. *World War II History*, V, 44.
10. *Velikaya pobeda sovetskogo naroda 1941-1945* [The Great Victory of the Soviet People, 1941-45] (Moscow, 1976), p. 398.

11. *Journal of Military History*, 1969, No. 1, p. 29.
12. *World War II History*, IV, 158.
13. *Great Patriotic War*, II, 159.
14. *World War II History*, V, 48.
15. *Great Patriotic War*, II, 511.
16. *World War II History*, V, 48.
17. *Great Patriotic War*, II, 512.
18. *CPSU History*, V, Bk. 1, 296.
19. *World War II History*, V, 48.
20. *Ibid.*, 92.
21. *Great Patriotic War*, II, 511.
22. *World War II History*, IV, 150.
23. *World War II History*, V, 48.
24. *Ibid.*
25. *World War II History*, VII, 484.
26. *World War II History*, V, 337.
27. *Ibid.*, 48.
28. *World War II History*, IV, 272; VI, 20; *Patriotic War Short History*, p. 579.
29. *World War II History*, VI, 20.
30. *World War II History*, IV, 161.
31. *Fifty Years of the Armed Forces*, p. 257.
32. *Journal of Military History*, 1975, No. 12, p. 67.
33. *Fifty Years of the Armed Forces*, p. 459; *World War II History*, VI, 20.
34. *World War II History*, III, 418; V, 334.
35. *World War II History*, IV, 60; *Fifty Years of the Armed Forces*, p. 269.
36. *Journal of Military History*, 1967, No. 8, p. 32.
37. *Fifty Years of the Armed Forces*, pp. 269, 270.
38. *CPSU History*, V, Bk. 1, 182.
39. *Fifty Years of the Armed Forces*, p. 270.
40. *World War II History*, V, 22.
41. *Fifty Years of the Armed Forces*, pp. 269, 304.
42. *Ibid.*, p. 270.
43. *Journal of Military History*, 1967, No. 8, p. 33.
44. *Fifty Years of the Armed Forces*, pp. 270-71.
45. *Ibid.*, p. 270.
46. *Journal of Military History*, 1975, No. 9, p. 82.
47. *Fifty Years of the Armed Forces*, p. 271.
48. M. V. Krasil'nikov and G. I. Petrov, *Istoriya khimicheskoy sluzhby i voysk khimicheskoy zashchity Sovetskoy Armii* [History of the Chemical Warfare Service and the Chemical Protection Troops of the Soviet Army] (Moscow, 1958), pp. 118-20.
49. *World War II History*, V, 121, 334; VI, 20.
50. *Fifty Years of the Armed Forces*, p. 271.
51. *Voyska protivovozdushnoy oborony strany. Istoricheskiy ocherk* [National Air Defense Forces: A Historical Outline] (Moscow, 1968), p. 127. [Hereafter cited as *National Air Defense Forces—U.S. Ed.*]
52. *National Air Defense Forces*, p. 159.
53. *World War II History*, V, 22.
54. *Ibid.*, 48.
55. *Vnutrenniye voyska v Velikoy Otechestvennoy voyne. 1941-1945 gg. Dokumenty i materialy* [Internal Troops in the Great Patriotic War 1941-45: Documents and Materials] (Moscow, 1975), p. 22.
56. *Fifty Years of the Armed Forces*, pp. 311, 330.
57. *Ibid.*, p. 274.
58. A. M. Iovlev, *Deyatel'nost' KPSS po podgotovke voyennykh kadrov* [CPSU Activity in Training Military Cadres] (Moscow, 1976), p. 153.
59. *Fifty Years of the Armed Forces*, p. 272.

60. *Patriotic War Short History*, p. 98.
61. A. M. Iovlev, *Deyatel'nost' KPSS po podgotovke voyennykh kadrov* [CPSU Activity in Training Military Cadres], p. 167.
62. Lenin, XXXVII, 15.
63. *CPSU History*, V, Bk. I, 171-72.
64. *CPSU on the Armed Forces*, p. 305.
65. *Ibid.*, p. 307.
66. *CPSU History*, V, Bk. I, 175.
67. *Ibid.*, 176.
68. *Ministry of Defense Archives*, f. 208, op. 29498, d. 4, l. 62-68.
69. J. Stalin, *O Velikoy Otechestvennoy voyne Sovetskogo Soyuza* [The Great Patriotic War of the Soviet Union] (Moscow, 1953), p. 57.

Chapter 9. Development of the Armed Forces at the Turning Point in the Great Patriotic War

(November 1942–December 1943)

1. Attaining Decisive Superiority Over the Enemy in Materiel

In the autumn of 1942, the armed conflict on the Soviet–German Front continued on a gigantic scale and with unprecedented intensity. The fascist German troops penetrated deep into the east: they broke through to the Volga at Stalingrad and reached the foothills of the Caucasus Mountains. As formerly, the enemy was near Moscow and was blockading Leningrad.

The situation was aggravated by the fact that the Armed Forces of the USSR were still fighting the armies of the fascist bloc one on one. The main forces of fascist Germany and her European allies were to be found on the Soviet–German Front. Here the outcome of World War II was being decided, and here the world's attention was riveted.

However, the main fascist German offensive grouping was already bled white and exhausted. The Communist Party and the Soviet government, quick to detect an irreversible trend in the correlation of forces on the Soviet–German Front, promptly sought to secure a decisive turning point in the war. This was accomplished by the counteroffensive at Stalingrad, the Battle of Kursk (the greatest battle in the second period of the war), and the emergence of Soviet troops at the Dnepr River. The Soviet Armed Forces now had a firm hold on the strategic initiative.

The triumphs scored during the second period of the Great Patriotic War testified to the accrued strength of the Soviet Army and Navy, to the growth in their fighting strength, to their organizational excellence, and to their high moral-political state. The art of war reached a new level: the principal mode of armed conflict was now the strategic offensive. The mass expulsion of the enemy from the Motherland had begun.

Credit for the decisive turning point in the war, and for the improvement and strengthening of the Soviet Armed Forces, was due in no small measure to the successes achieved on the Soviet home front. Despite still present difficulties, the heroic efforts of the entire nation, led by the Com-

munist Party, got defense production running smoothly and growing rapidly by mid-1942. The national economy entered a fundamentally new stage of development. Once put on a war footing, it supplied the front with all necessities. The conditions were right for the consolidation and extension of military and technological superiority over the enemy.

The party's Central Committee, the State Defense Committee, and the Council of People's Commissars each took appropriate action to eliminate bottlenecks from the national economy. Capital construction was undertaken on a wide front. During 1943 alone, 3 blast furnaces, 20 open-hearth furnaces, 23 electric furnaces, 8 rolling mills, and 3 batteries of coke ovens were built in the interior.¹ At the beginning of the war, industrial consumption of metal, electric power, and fuel was disproportionately high in comparison with industrial production of these commodities, and steps were taken to correct this situation. The output of heavy industry's leading sectors increased steadily during 1943, as may be seen from table 6.

Table 6. Output of Key Industrial Commodities in the USSR.¹

Commodity	1942	1943
Electric power, billion kwh	29.1	32.3
Coal, million tons	75.5	93.1
Oil, million tons	22.0	18.0
Iron, million tons	4.8	5.6
Steel, million tons	8.1	8.5
Rolled metal, million tons	5.4	5.7
Machine tools, thousands	22.9	23.3

The stronger national economy and its growing heavy industry provided a firm base for defense production, which developed at a rapid pace and became much more formidable than it was at the beginning of the war.

As old plants were rebuilt and new ones went into production, the fixed industrial assets at the disposal of the People's Commissariat for Armament increased considerably. In 1943, armament production attained the highest level it ever reached during the war. Redesigned and newly designed models of weapons and combat equipment were put into mass production.

Much attention was paid to the improvement of small arms, especially of automatic small arms. New types possessing excellent combat characteristics and featuring simplicity of design and production technology were forthcoming.

The output of automatic small arms rose from month to month. Whereas 356,100 machine guns and 1,506,400 submachine guns were pro-

duced in 1942, the corresponding figures for 1943 were 458,500 and 2,023,600 respectively.³ This permitted the output of rifles and carbines to be reduced. As a result, the number of automatic weapons in the army in the field doubled between April and July 1943.⁴

Artillery and mortar armament continued to be improved, and it was produced in ever-increasing quantities. Because the new 152mm corps howitzer (D-1) had high technical specifications, it was put into mass production for the front. Production of certain medium-caliber field guns was cut back, as there was a dwindling demand for them. The defense industry supplied the Army with more powerful tank and antitank guns as well as with 76mm, 85mm, 122mm, and 152mm guns for self-propelled artillery.

The troops received about 200,000 guns and mortars in 1943.⁵ As the 50mm mortar did not justify itself under combat conditions, its production was discontinued.

There was a significant increase in the output of artillery ammunition, above all, of ammunition for air defense guns and special antitank ammunition (subcaliber and shaped charge shells) having high armor-piercing capability. The new M-31 300mm high-explosive rocket shell was of special importance. The M-31 had a 50 percent greater range than its forerunner, the M-30. In 1943, the munitions industry produced approximately 86 million shells (not counting aerial bombs) and 75,700,000 mortar bombs.⁶ The troops in the field received more ammunition than they expended. This permitted the accumulation of a modest reserve, which formerly had not been possible.

The tank builders worked successfully. The Urals became the tank production center. Three factories there accounted for two-thirds of the entire 1943 output of the facilities administered by the People's Commissariat for the Tank Industry: the Kirov plant at Chelyabinsk, the Ural heavy machinery plant, and Comintern Plant No. 183. The "Krasnoye Sormovo" plant at Gor'kiy became a gigantic tank factory. Built large, the new plants could accommodate the mass production, modern technology, and assembly-line techniques that permitted the output of many tank parts and subassemblies to be raised by 50 percent. For the first time anywhere, metal molds (shells) were used instead of the usual sand molds for making large steel castings. This doubled or tripled steel foundry productivity.

The production process was greatly accelerated by the transition from casting and forging to die-stamping methods for the manufacture of parts, the T-34 tank turrets in particular. Tank production technology underwent important changes when manual welding was replaced by automatic welding.

Despite the emphasis on output, every effort was made to improve the combat qualities of Soviet tanks and to create new models. The modernized T-34 tank, armed with an 85mm cannon, went into service during the latter half of 1943, and the new heavy JS tank, 50 to 100 percent better than its German counterparts in armor protection, appeared in September of that year.

At the end of 1942, the State Defense Committee decided to start production of self-propelled artillery, and prototypes were soon developed. In 1943, series production of 76mm, 85mm, 122mm, and 152mm self-propelled guns was begun. Tanks and infantry got a powerful means of support.

The average monthly output of armor in 1943 exceeded 2,000 self-propelled guns and tanks, mostly in the medium and heavy categories. The total output during 1943 was 24,100. In the fourth quarter of that year, the T-34 medium tank accounted for 92.1 percent of all tank production. In November 1943, the manufacture of light tanks was discontinued.⁷ By then, the Soviet Armed Forces were receiving the latest combat vehicles.

Air materiel was improved, fighters and bombers first of all. Modernization of the La-5 fighter was completed in the spring of 1943. Its new version, the La-5FN, surpassed all German fighters, including their latest FW-190. The Soviet Yak-9 fighter, armed with a 37mm cannon, was mastered by Air Force personnel. A modification of it, the Yak-9d escort fighter, was put into production during the latter half of 1943. It had a range of 1,400 km.

The technical specifications of Soviet bombers were improved. The designers managed to increase the speed and range of the Pe-2 dive bomber considerably. Work on the new Tu-2 dive bomber was continued in 1943. The Il-2 two-seater with a rear gunner position was put into production. From May 1943 onward, it was armed with a 37mm cannon.

While improving the quality of its product, the aircraft industry increased its output. This was made easier by the introduction of the assembly line in aircraft plants. The average monthly output of aircraft was 2,900 in 1943, as against 2,100 in 1942.⁸ In all, 34,884 aircraft were produced in 1943, which was 37 percent more than in 1942. This included 14,627 fighters, 11,193 ground-attack aircraft, 4,057 bombers, and 5,007 auxiliary aircraft. Some 85.6 percent of this total were combat aircraft.

The National Air Defense Forces were issued improved materiel. Their air units got new fighters. Their medium-caliber air defense artillery units were rearmed with more powerful 85mm cannons. The air defense troops also received new fire-control radar (PUAZO-3), new gun-laying radar

(Redut-43), new detection and guidance radar (Pigmatit), and improved radar-controlled searchlights (RAP-150).

The Aircraft Early Warning and Communications Service was put on a radar footing. From the summer of 1943 onward, the radar sets issued to units and formations not only enabled them to detect enemy aircraft and guide fighters to them, they also featured a fighter orientation capability for use in poor visibility.

On the whole, the National Air Defense Forces were better equipped in 1943 than in 1942, as reflected by the following factors: fighters, 1.6; medium-caliber air defense guns, 1.4; small-caliber air defense guns, 4.7; and large-caliber air defense machine guns, 5.8.⁹ This improvement in materiel enabled the National Air Defense Forces to create a number of new formations and to increase the depth of the air defense system to 1,100 to 1,500 km.¹⁰

The Soviet Navy also received additional materiel. During the second period of the war, the shipyards launched 286 naval vessels, mainly motor torpedo boats, small submarine chasers, and armored launches.¹¹ The fleet got improved air defense armament, new antennas, influence and induction mines, torpedoes of new types, radar sets, searchlights, and so on.

To a great degree, the Soviet Armed Forces received better equipment through the heroic efforts of the workers on the home front and their numerous patriotic movements. For example, the drive begun in 1942 to collect funds for building tank columns, submarines, and air squadrons became a mass movement. With their personal savings, Soviet wage earners built 15 tank columns and 2 air squadrons for the front.¹²

The upward turn in defense production, which began in the autumn of 1942, became firm in 1943. Despite the temporary loss of important regions, the Soviet war economy was producing materiel on a larger scale than that of the fascist Reich. In 1943, with an output of 44.1 billion kwh of electric power, 27 million tons of iron, and 34.6 million tons of steel, Germany produced 10,700 tanks and assault guns, and 25,200 aircraft, which was considerably less than the USSR produced.¹³

As a result of party and government measures, the Soviet Armed Forces had in the army in the field, by mid-1943, 105,000 guns and mortars, 10,200 self-propelled artillery pieces and tanks, and 10,200 combat aircraft.¹⁴ The increase in these figures compared with those for the end of 1942 is shown by the following factors: artillery armament, 1.3; armor, 1.4; and aircraft, 2.3. The Soviet Army had an almost twofold superiority over the fascist German forces in tanks and artillery, and more than a threefold superiority in aircraft.

The massive supply of materiel to the army in the field led to a firm supremacy over the fascist German Wehrmacht in combat equipment. The Soviet Armed Forces were thus able to pass to the offensive on a grand scale in sequential operations. Having enough materiel, the Soviet High Command could mass artillery, tanks, and aircraft in decisive sectors and could make the changes in troop organization necessary for this purpose.

2. Improving the Organizational Structure of the Armed Forces

A number of measures for further organizational strengthening of the Army and Navy were made possible by the troops' high levels of materiel and armament, by the accumulation of combat experience, and by the growth of military expertise among command personnel. These measures were a result not only of the increased equipment levels but also of the new demands made by the Soviet Armed Forces' transition from the strategic defensive to the strategic offensive.

The organizational measures were directed toward ensuring massive application and effective utilization of combat equipment concomitantly with a significant increase in the firepower and striking power of all services of the Armed Forces. When these measures were formulated, the experience gained in the organizational development of the Army and Navy under wartime conditions was carefully taken into account, as were the missions the troops would have to accomplish in future encounters.

The command and control organs of the Armed Forces continued to be improved. Their role in the accomplishment of the missions assigned by General Headquarters was increased. In May 1943, the State Defense Committee resolved that the people's commissar for defense would have only two deputies: a first deputy, Marshal G. K. Zhukov, and a deputy for the General Staff, Marshal A. M. Vasilevskiy. The posts of deputy people's commissar for the various branches were abolished. General Headquarters representatives were given a greater role in coordinating combat actions fought by fronts, in monitoring the performance of missions assigned to fronts, and in planning, preparing, and conducting operations.

Certain changes were made in the General Staff of the Armed Forces. One such change was the inclusion of the Main Directorate for Organization, which assumed responsibility for all troop organization matters. Much more was done to generalize the experience of conducting combat actions and to impart the results of such generalization to the troops.

Improvements continued to be made to the organizational structure of fronts and armies. From the end of 1942 onward, each front included air

armies—large operational aviation field forces. A front and its armies were reinforced with artillery units and signal units.

It was not unusual for a front field administration to be renamed, sent to another operational sector, assigned new missions, given new zones of action, and so forth. For example, at the bidding of General Headquarters, the Don Front was relocated from the Stalingrad area to the vicinity of Kursk for the period 5-15 February, was renamed the Central Front, and was deployed northwest of Kursk between the Bryansk and Voronezh fronts.

Altogether, the army in the field had 11 fronts, 55 combined arms army administrations, and 3 tank armies in December 1943.¹⁷ Organizationally, such a structure was well suited to the conduct of large-scale offensive operations.

As the Ground Forces took on the decisive role in the fighting, great importance was attached to their improvement and organizational strengthening. Combat experience dictated a review of the organization of rifle troop units and formations so to increase their allowances of automatic small arms, antitank weapons, artillery, and mortars.

In December 1942, the People's Commissariat for Defense ratified a new table of organization and equipment for a rifle division with a strength of 9,435 men. In comparison with the superseded (July 1942) table, the newly authorized table gave the division considerably greater combat capabilities, especially in its allowance of automatic and antitank weapons. Once again, each rifle battalion got a platoon of 45mm antitank cannons, which were gradually replaced by 57mm antitank guns that had considerably greater armor-piercing capability. The new table underwent further changes in 1943; as a result, the authorized number of submachine guns was increased by 321, while the authorized number of rifles was reduced by 200.¹⁸ Rifle units began receiving the Goryunov heavy machine gun, which was lighter in weight and simpler in design than its predecessors. Rifle units also received the improved Sudayev submachine gun (PPS-43) and an antitank hand grenade (RPG-43).

A table of organization and equipment for a Guards rifle division, with a strength of 10,670 men, went into effect at the end of 1942. Such a rifle division had 32 percent more automatic weapons than a conventional one. Whereas the conventional rifle division had an 8-battery (32-gun) artillery regiment, the Guards rifle division had a 9-battery (36-gun) artillery regiment.

The organizational structure of the highest ranking rifle formation, the rifle corps, was improved. As a rule, a rifle corps of the army in the field comprised three rifle divisions, a corps artillery regiment (122mm can-

nons), and a number of support units, including a signal battalion and an engineer battalion.

While the organizational structure of rifle formations was being improved, new rifle divisions and corps were being created. In 1943, 126 rifle corps administrations were formed, as well as 83 new rifle divisions, the latter mainly at the expense of independent rifle brigades. Altogether, by the end of 1943, the Ground Forces had 161 rifle corps administrations, including 36 in the Guards category. This improved command and control, made easier the planning of coordinated action by units and formations, strengthened the fronts' field forces, and made such field forces more mobile and maneuverable.

Combat experience showed that cavalry was extremely vulnerable to artillery fire, tank confrontation, and air attack. Serious difficulties arose in replenishing cavalry with horses. The number of cavalry divisions was therefore reduced still further. By the end of 1943, only 26 cavalry divisions remained.¹⁷ These were all converted to a new organizational structure (three horse regiments, one artillery regiment, and one tank regiment).

Artillery underwent substantial organizational changes. The development of organic artillery was calculated to give rifle formations and field forces greater self-sufficiency in engagements and operations; to better enable commanders at all levels to influence the course of combat actions; to create more advantageous conditions for coordinated action of artillery with infantry and tanks; and to strengthen the antitank defense and air defense of infantry. Thus, a rifle division's allowance of 120mm mortars rose from 18 to 21. The number of antitank cannons increased from 30 to 48. Between the beginning and the end of 1943, the number of guns and mortars in a tank corps increased from 90 to 152, and in a mechanized corps from 246 to 252. In April, combined arms armies and tank armies began to include independent artillery and mortar regiments, which laid the foundation for army artillery.¹⁸

Supreme High Command Reserve artillery underwent further development. Now that the Soviet Army had passed to the offensive, the need arose to create powerful artillery groupings to devastate the enemy's fortified defensive zones, to neutralize his fire system reliably, and to repulse his counterattacks.

Forming artillery divisions by merging artillery units was begun in November 1942. Such a division consisted of eight regiments (two cannon, three howitzer, and three antitank) with a total of 168 guns. Experience gained in the use of artillery divisions during the counteroffensive at Stalingrad confirmed the advantage of further organizational strengthening for Supreme High Command Reserve artillery.

The creation of 6-brigade artillery divisions, with 356 guns and mortars in each brigade, began in April 1943. The formation of rocket artillery divisions was begun concurrently. Such a division could fire a volley of 3,456 rocket shells with a total weight of 320 tons. Two artillery breakthrough divisions and one Guards mortar division were merged to form an artillery breakthrough corps. Such a corps had 496 guns, 216 mortars, and 864 M-31 rocket launchers.¹⁹ This was a powerful means of neutralizing the enemy's fire. Toward the end of 1943, Supreme High Command Reserve artillery had 6 corps, 26 divisions, and 7 Guards mortar divisions.²⁰

In the autumn of 1942, independent Supreme High Command Reserve air defense regiments were merged to form air defense artillery divisions. According to its table of organization and equipment, ratified in February 1943, such a division consisted of four regiments: three armed with 37mm cannons, and one with 85mm cannons. Due to this, it was now possible to engage enemy aircraft flying at altitudes as high as 7,000 meters. By the end of the second period of the Great Patriotic War, there were 60 air defense artillery divisions in the Ground Forces, and their presence increased the effectiveness of organic air defense considerably.

Supreme High Command Reserve tank-destroyer artillery continued to grow. Enlargement of its units and formations was begun in 1943. By 1 June, 20 tank-destroyer artillery brigades had been formed. Each such brigade consisted of two 76mm cannon regiments and one 45mm cannon regiment. All three were 5-battery regiments with four guns in each battery. In addition, there were 164 independent tank-destroyer artillery regiments.

Supreme High Command Reserve self-propelled artillery regiments, intended to reinforce infantry and tanks in the role of accompanying artillery, began formation at the end of 1942. Originally, such regiments were of mixed composition: 17 SU-76s and 8 SU-122s. Later, however, it was deemed more advantageous to have homogeneous light, medium, and heavy 4-battery regiments, with five guns of the same type in each battery.

The number of Supreme High Command Reserve artillery formations rose as a result of these organizational changes. By July 1943, the army in the field and the reserve had 65 divisions in the artillery, air defense artillery, and Guards mortar categories, in addition to 51 artillery brigades.²¹ Besides, four breakthrough artillery corps had been formed. The number of guns and mortars in the Supreme High Command Reserve artillery increased significantly. Whereas in November 1942 there were only about 17,000 guns, mortars, and rocket launchers, the corresponding figure for June 1943 exceeded 33,000.²²

The large Supreme High Command Reserve artillery formations were a powerful means of reinforcing fronts and armies. Their very existence increased the opportunities for maneuvering and massing artillery on the main axes. All this opened up new prospects for conducting offensive operations.

Artillery's ongoing development and its growing role in engagements and operations called for further improvement of its command and control organs and for centralization of its direction in formations, in field forces, and in the Soviet Armed Forces as a whole. The post of commander of Red Army Artillery was authorized at the end of 1942. Its first incumbent, appointed in March 1943, was General N. N. Voronov. Similar posts were created at the division, corps, army, and front levels.

Experience gained in the use of tank armies during the 1942-43 winter campaign showed that such an army should not include formations with combat equipment of diverse speed, cross-country capability, and maneuverability. Accordingly, from the spring of 1943 onward, a newly formed tank army had two tank corps and one mechanized corps as its basic formations. This increased the maneuverability of this field force considerably and improved its command and control. In addition to its basic formations, the tank army had two tank-destroyer regiments, two mortar regiments, two air defense artillery regiments, two self-propelled artillery regiments, and sometimes a howitzer artillery regiment as well.²³

Tank and mechanized formations were also improved organizationally. Toward the end of 1943, the tank corps included three tank brigades and one motorized rifle brigade, two or three self-propelled artillery regiments, one mortar regiment, one air defense artillery regiment, and units for materiel support. According to its table of organization and equipment, the tank corps was to have 11,000 men, 209 T-34 tanks, 49 self-propelled artillery pieces, 152 guns and mortars, and more than 1,200 motor vehicles.²⁴

The mechanized corps included three mechanized brigades and one tank brigade, one or two self-propelled artillery regiments, one mortar regiment, one air defense artillery regiment, one conventional artillery regiment, one tank-destroyer artillery regiment, an independent Guards mortar battalion with BM-13 rocket launchers, and servicing and support units. Altogether, the mechanized corps' table of organization and equipment authorized 16,369 men, 197 tanks, 49 self-propelled artillery pieces, 252 guns and mortars, and more than 1,800 motor vehicles.²⁵

There was improvement in the combat capability of independent tank brigades and regiments, which were equipped mainly with medium and heavy tanks. The month of June saw the formation of the engineer tank

regiment, which included 22 T-34 tanks and 18 PT-3 minesweeping attachments.

In 1943, existing field forces, formations, and units in the armored category were supplemented by several tank armies of homogeneous makeup, by a number of tank and mechanized corps, by mechanized brigades, and by a considerable number of tank regiments and self-propelled artillery regiments.

The new measures did much to improve the striking power of the armored forces. Their composition at the end of 1943 included 5 army administrations, 24 tank corps and 13 mechanized corps, 80 independent tank brigades, 106 independent tank regiments and 43 independent self-propelled artillery regiments, a number of independent tank battalions, a large number of artillery units, mortar units, and materiel support.²⁶

The quantitative growth and qualitative improvement of the armored forces gave the Ground Forces greater striking power and more maneuverability, thus permitting the conduct of large-scale offensive operations directed toward the attainment of decisive goals.

In December 1942, the State Defense Committee authorized the creation of the post of commander of Red Army Armored Forces, together with military council and staff. The post was filled by General Ya. N. Fedorenko. It was created to centralized command and control of armored forces and to increase accountability for their employment. Similar posts were introduced in the fronts (or districts) and in the combined arms armies.

In April 1943, self-propelled artillery and its command elements were withdrawn from the jurisdiction of the commander of Red Army Artillery and were resubordinated to the commander of Red Army Armored Forces.

The airborne troops underwent a substantial reorganization. At the beginning of 1943, they comprised 10 Guards airborne divisions, 1 airborne brigade, and a number of training and auxiliary units. Inasmuch as airborne divisions were employed like ordinary rifle divisions, they were integrated into the rifle troops in the spring of 1943. In place of these divisions, 20 Guards airborne brigades were formed.²⁷

The engineer troops continued to be improved. In the spring of 1943, engineer brigades began to be transformed into engineer assault brigades to ensure a breakthrough of the enemy's strongly fortified defensive lines. Each such brigade included its component battalions, a headquarters company, a reconnaissance company, a canine mine-detector company, and a light bridge train.²⁸ In view of the impending crossings of large water obstacles, steps were taken to create independent Supreme High Command

Дважды или более раз
выступил в качестве члена жюри:
ПРАВДА
Орган Центрального Комитета и Мин. Внутр.
и С. 1910 Материалы 1910 1910

Все наши силы—на поддержку нашей героической Красной Армии, нашей славной Красной Флота!

**Все силы народа — на разгром врага!
Вперед, за нашу победу!**

Выступление по радио
Председателя Государственного Комитета Обороны
И. В. СТАЛИНА.

3 mru 1941 1000.

Товарищ! Будьте внимательны!
Всегда и везде будьте готовы к работе!
Привет и успехов!



The 3 July 1941 issue of *Pravda* reports the radio broadcast made by Chairman of the State Defense Committee J. V. Stalin.



Infantry column marching to the front line, June 1941.



Secretary of the Central Committee of the VKP(b) A. S. Shcherbakov, Chief of the RKKA's Main Political Administration, with officers of the 33rd Army's political section. Western Front, August 1942.



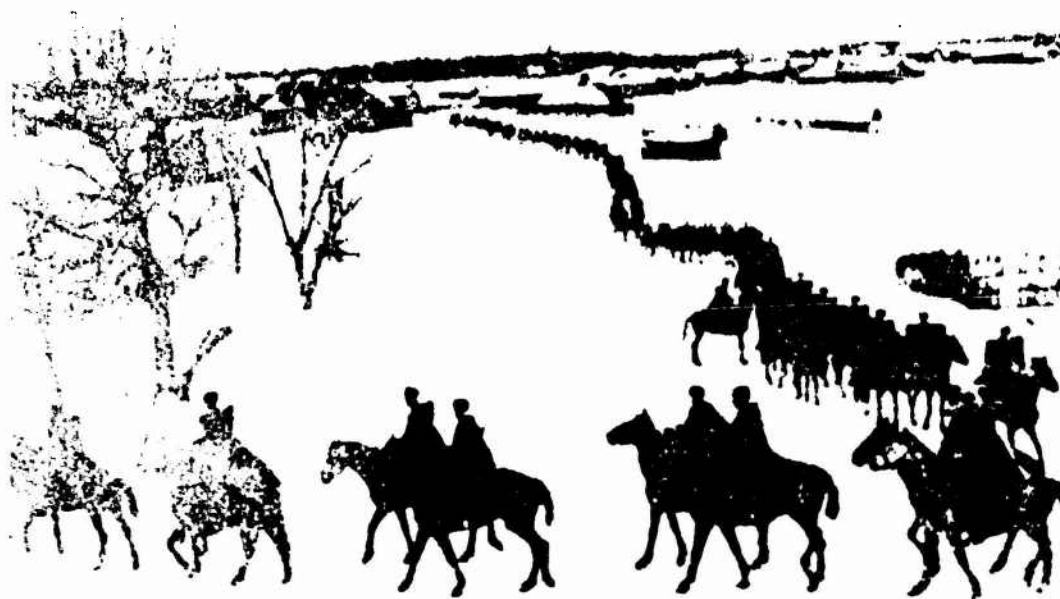
A political instructor in an antitank rifle company talks with antitank riflemen. Leningrad Front, 1942.



A deputy battalion political officer talks with young soldiers. 1st Ukrainian Front, October 1944.



General L. M. Dovator's cavalrymen, Moscow Region, 1941.





A mortar crew fires at the enemy, January 1945.



A volley from rocket artillery.



Air defense gunners at their fire position, March 1945.



An artillery gun crew in Danzig, March 1945.



Tankmen on the march, May 1943.



In liberated Poznan, 1 February 1945.



Paratroopers.



On Mukden airfield, September 1945.



Engineers clear a ford of mines, 1943.



Crossing the Zapadnaya Dvina River, 1944.



Restoring communication lines.



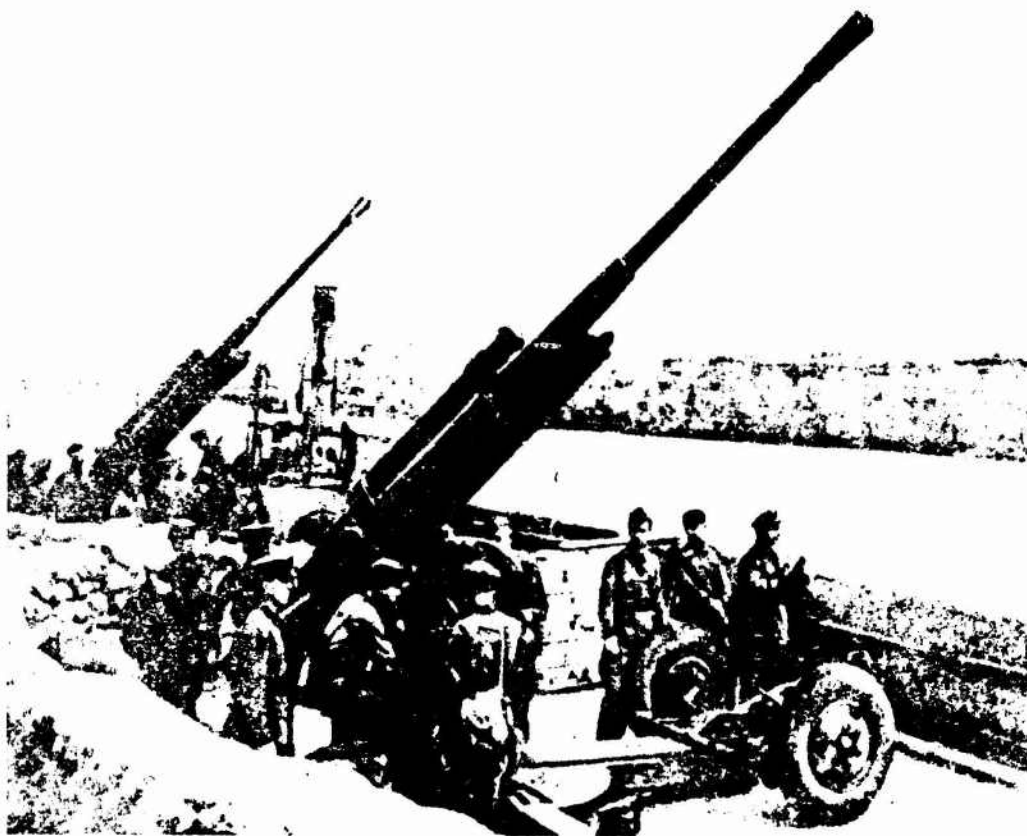
Receiving a Soviet Information Bureau report, 1944.



Commanders of the first motor transport units to cross Lake Ladoga, winter of 1942-43.



Motorized column on the march, 1943.



Defenders of Leningrad, 1942.



Searchlight operators.



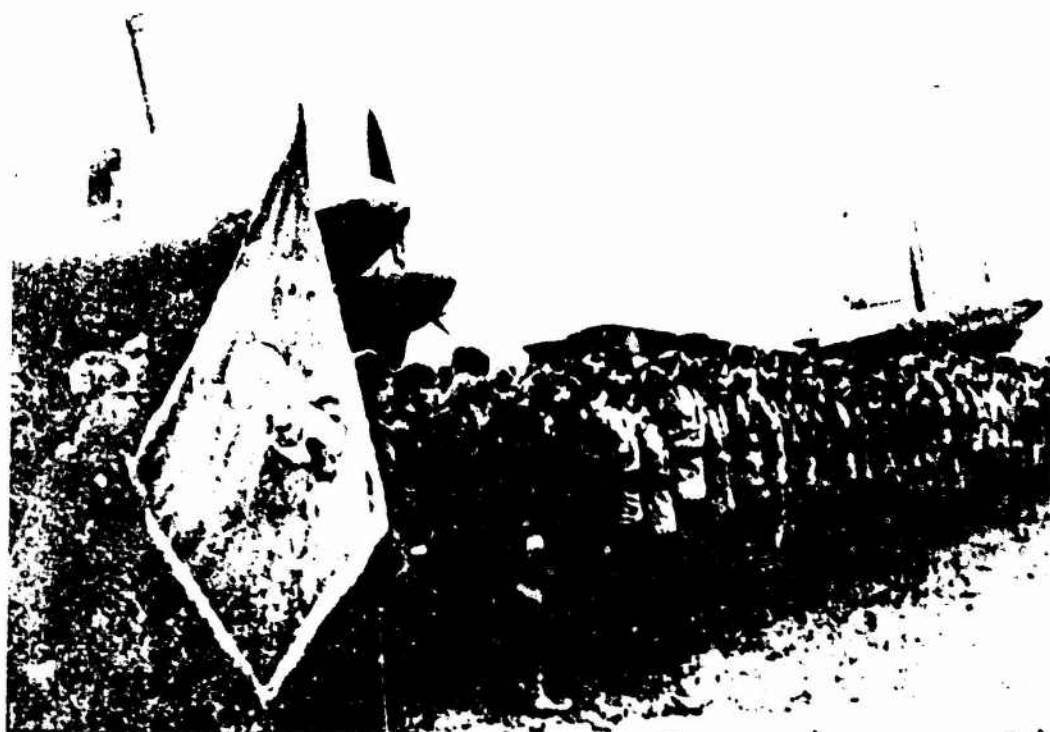
Building a railroad. Central Front.



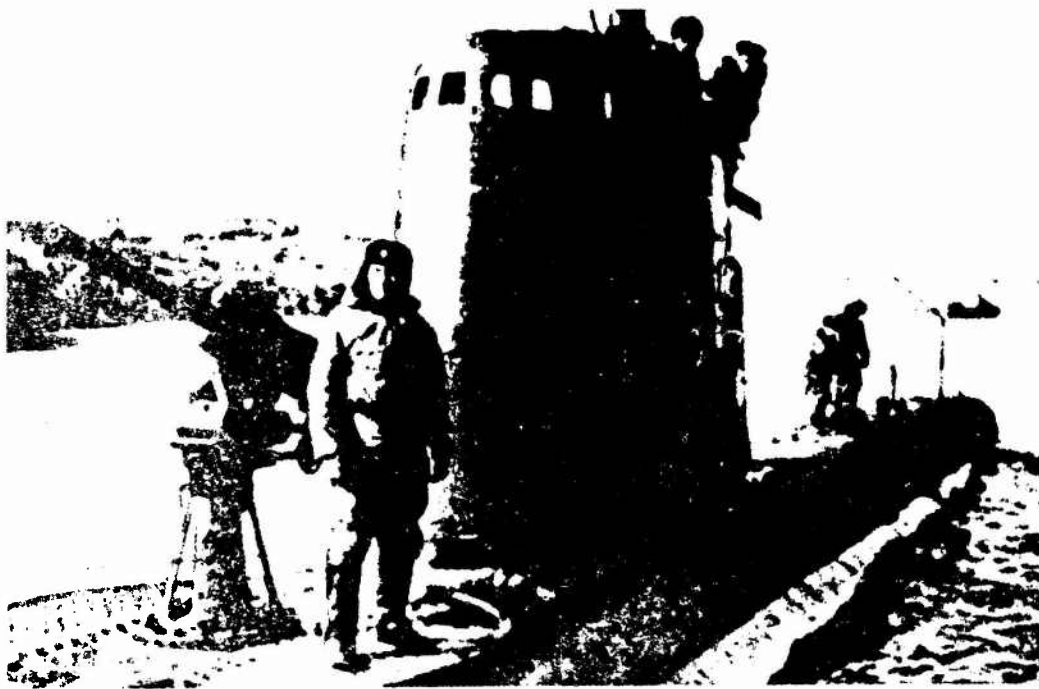
Border Troops on duty, 1943.



La-7 fighters, 1945.



Guards air regiment honored for distinguished service in East Prussia, April 1945.



A submarine returns from an operation. Northern Fleet, May 1943.



The commanders of the fronts during the final stage of the Great Patriotic War: (front row, left to right) Marshals of the Soviet Union I. S. Konev, A. M. Vasilevskiy, G. K. Zhukov, K. K. Rokossovskiy, and K. A. Meretskov; (second row) Marshals of the Soviet Union F. I. Tolbukhin, R. Ya. Malinovsky, L. A. Govorov; Generals of the Army A. I. Yermenko and I. Kh. Bagramyan, 1945.



The joy of victory, May 1945.



And they ended their march at the Pacific Ocean.

Reserve motorized pontoon-bridge regiments equipped with a heavy bridge train and capable of ferrying or conveying by bridge consignments weighing as much as 100 tons. Engineer units and formations in other categories also became more numerous. By the end of 1943, the engineer troops numbered 58 brigades, 9 regiments, and more than 1,000 battalions.

The growth in the numerical strength of the engineer troops, as well as their better equipment and better organization, permitted a significant improvement in the engineer support of Red Army combat actions, especially of those involving a breakthrough of the enemy's strong defensive positions and fortified regions.

The greater abundance of Soviet Army field forces and formations made it necessary to create new units and to bring existing signal units up to authorized strength in men and equipment. Improvement of command and control also presented a challenge to signal personnel in the army in the field.

In 1943, to maintain firm command and control, several signal battalions were formed and attached to each front to handle communications between the General Staff's operational groups. Special signal units were also created for communication between the General Staff and the fronts. Furthermore, nine radio battalions and five radio companies equipped with powerful radio sets were provided to reinforce the fronts.²⁹ This was of great importance for maintaining stable coordination between field forces and formations.

Combined arms armies and tank armies had a certain number of line signal units: an independent signal regiment, an independent line signal battalion, a telegraph construction company, a telephone construction company (one per corps), a reserve company, and an aviation signal regiment.

Signal troops received improved radio sets and telegraph equipment. Radio became a very important means of command and control. As they gained experience and mastered their new technical resources, signalmen became more adept in providing the interruption-free communication needed for troop control purposes.

Chemical troops also underwent a reorganization. By the summer of 1943, technical brigades had been created for laying smoke screens and camouflaging large installations.

Five independent motorized flamethrower battalions were formed in the spring of 1943 to combat the enemy's tanks. Such a battalion could create a continuous zone of fire (by flamethrowing) on a 3-km front.³⁰

The offensive operations of the 1942-43 winter campaign called for larger motor transport units and formations. Several motor transport brigades and independent motor transport battalions were formed to ensure timely delivery of munitions, rations, and other commodities to the advancing troops. The motor transport brigades served fronts and armies, while the independent motor transport battalions were used in military districts as bases for the safekeeping and maintenance of vehicles requisitioned from the national economy or removed from rear units.

As the attacking troops advanced, the front and army lines of communication got longer. Additional engineer road construction and bridgebuilding units were formed to build, restore, and service roads and bridges.

By mid-1943, the road troops comprised military highway directorates, traffic control directorates, operating regiments, independent operating battalions, independent bridging battalions, and other units. The Highway Service was improved organizationally in anticipation of new large-scale operations by the Soviet Armed Forces.

The railroad troops grew considerably and got stronger. They included railroad brigades, operating brigades, and a significant number of independent units. The railroad troops had the personnel structure and the equipment to accomplish formidable missions concerning restoration and construction of railroads and support of Soviet troops.

A new table of organization and equipment for the railroad brigade was ratified in February 1943. Such a brigade included operating battalions, a bridging battalion, a mechanization battalion, and an operating company. A communications restoration company was included later.

As a result of the reorganization, certain changes took place in the structural configuration of the Ground Forces. Rifle troops remained preeminent in numerical strength. There was an appreciable increase in the relative strength of armored forces and Supreme High Command Reserve artillery which formed the basis of the Ground Forces' striking power and firepower. Cavalry's role in combat actions attenuated noticeably, and its absolute and relative numerical strength diminished significantly.

Substantial new organizational changes to the Air Force were demanded by the qualitative and quantitative growth of the aircraft inventory and by the augmented role being played by aviation in the war.

An effort was made to improve and strengthen the air armies, which constituted the most important means available to the Soviet command for the massed use of aviation on decisive axes. An air army usually included 2 to 3 fighter divisions, 1 to 2 bomber divisions, 1 ground-attack

division, and independent special air units. During an operation, air armies could be reinforced with independent Supreme High Command Reserve air formations. Whereas at the end of 1942, an air army numbered, on the average, no more than 400 aircraft (not counting attached Supreme High Command Reserve aviation) the corresponding figure for mid-1943 was 500. Taking into account attached reserve air formations, an air army's aircraft inventory numbered 750 to 800, and when assigned to a main axis, 1,100 to 1,200.¹¹

Supreme High Command Reserve air corps were formed as a matter of urgency. Such an air corps consisted of two homogeneous or mixed air divisions. By 1 April 1943, there were 19 such reserve air corps (4 fighter, 3 bomber, 3 ground-attack, and 9 mixed) in the Air Force.¹² Besides, there were three reserve fighter air corps in the National Air Defense Forces. These air formations, being at General Headquarters' disposal, became a powerful, maneuverable means of reinforcing air armies and establishing numerical superiority in aircraft on decisive strategic axes.

Long-Range Aviation was further strengthened and improved. Its air corps, abolished at the beginning of the war, were reinstated. By the summer of 1943, it had eight air corps, numbering about 950 aircraft.¹³ Long-Range Aviation got its own aviation schools, airfield servicing battalions, repair workshops, and warehouses. These entities were either formed expressly for Long-Range Aviation or were reassigned to it from the Air Force. Whatever their source, they made Long-Range Aviation completely self-sufficient in crew training and in materiel maintenance and supply.

The Air Force constantly received air materiel in ever-increasing abundance. This enabled all air regiments and air divisions to be brought up to authorized strength, and it augmented the aircraft inventory of combat aviation considerably. By the beginning of 1944, the army in the field had 10,200 combat aircraft. Since the autumn of 1942, Soviet aviation's aircraft inventory had gained 5,700 combat aircraft, that is, had grown by a factor of 2.3.¹⁴

The Air Force got a large number of radios, radars, and other airborne and ground equipment, which permitted an improvement in air command and control. The year 1943 was a milestone in the organizational development of the Air Force. The updating of its materiel was basically complete, and it had been reorganized in accordance with the war's demands. Soviet aviation entered a new and more advanced phase of its organizational development, and its fighting strength rose significantly.

The National Air Defense Forces underwent further development. Experience showed that their excessively large number of formations and

field forces adversely affected command and control when safeguarding industrial and administrative targets against air attack.

In June 1943, the Directorate of the Commander of National Air Defense Forces was abolished, and these forces were resubordinated to the commander of Soviet Army Artillery. Under his authority were several newly created elements, including a central staff for air defense troops, the central staff for fighter aviation, the central post of the Aircraft Early Warning and Communications Service, a main inspectorate, and a combat training directorate.

When the Directorate of the Commander of National Air Defense Forces was abolished, the Far Eastern, Transbaykal, and Central Asian air defense zones were resubordinated to the military council of the appropriate front or military district. The Leningrad Air Defense Army and the Lake Ladoga Air Defense Region remained subordinated operationally to the military council of the Leningrad Front.

In June 1943, the State Defense Committee passed a resolution subdividing the National Air Defense Forces into the Eastern and Western air defense fronts. The dividing line was defined by the towns of Arkhangel'sk, Kostroma, Krasnodar, and Sochi.

Of the two air defense fronts, the Western had more personnel and greater fighting strength because it had to accomplish combat missions in the zone most susceptible to fascist German air raids. The Western Front was entrusted with the air defense of Moscow, Murmansk, the Central Industrial Region, targets in the front zone, and communication routes. The Western Air Defense Front included the Special Moscow Air Defense Army (formed when the Moscow Air Defense Front was disbanded), 11 corps and divisional air defense regions, and 14 formations of air defense fighter aviation. By the middle of the year, the Western Air Defense Front had 1,012 fighter crews, 3,106 medium-caliber air defense guns, 1,066 small-caliber air defense guns, 2,280 air defense machine guns, 1,573 air defense searchlights, and 1,834 barrage ballons."

The Eastern Air Defense Front was entrusted with the air defense of important installations in the Urals, the Middle and Lower Volga regions, the Caucasus, and Transcaucasia. It consisted of the Transcaucasian Air Defense Zone, seven corps and divisional air defense regions, and eight formations of air defense fighter aviation. The Eastern Air Defense Front had 447 fighter crews, 2,459 medium-caliber air defense guns, 800 small-caliber air defense guns, 1,814 air defense machine guns, 1,142 air defense searchlights, and 491 barrage ballons."

Thus, the National Air Defense Forces got stronger organizationally and gained in numerical strength. Improved command and control of for-

mations and field forces, and the acquisition of modern materiel, especially radar equipment, made the National Air Defense Forces better able to detect and destroy air targets. However, the post of commander of National Air Defense Forces was seen to have been abolished inadvisedly. Because of too many responsibilities, the commander of Soviet Army Artillery had difficulty coordinating the actions of many air defense formations and field forces.

Certain organizational changes were made to the Navy in accordance with the altered operational-strategic situation in maritime theaters of war.

General Headquarters decided that the Northern Fleet was to be entrusted with the defense of the Rybachiy Peninsula and the Sredniy Peninsula. Due to the significant expansion of its operational zone, the Northern Fleet had to be reinforced at the expense of other fleets. In October 1942, in accordance with a State Defense Committee resolution, a detachment of warships consisting of the leader *Baku* and two destroyers made the passage from the Pacific Fleet to the town of Polyarnyy by way of the Northern Sea Route. Five submarines proceeded from Vladivostok to the Northern Fleet in the spring of 1943. Between August 1942 and June 1943, several submarines left the Caspian Sea and the Volga River to join the Northern Fleet. As a result, the Northern Fleet gained 19 submarines. Additionally, its existing destroyer division was upgraded to a brigade.

The Northern Fleet's aviation arm was given a Murmansk national air defense fighter division, a long-range air division, and a mixed air division. Thus strengthened, it was quite able to provide air defense for naval bases, convoys, and warships at sea, and could reinforce air raids against enemy airfields in the North as well.

The Red Banner Baltic Fleet was supplemented substantially by the completion of new ships and the return to service of those that had undergone refit. The Lake Ladoga Naval Flotilla got more than 300 vessels of various types.

The Lake Onega Naval Flotilla was formed in December 1942. Its Sea of Azov and Dnepr River counterparts were formed in February and September 1943. Their creation was accompanied by allocations of personnel and materiel from the Baltic Fleet and the Black Sea Fleet, as well as by requisitions of vessels from the national economy.

The Baltic Insular Sector of the Kronshtadt Naval Base was renamed the Insular Naval Base. The Kronshtadt Seaward Defense Region was created in January 1943. It comprised the men and equipment of the Kronshtadt and Insular naval bases of the Red Banner Baltic Fleet.

Steps were taken to broaden the logistical base of naval engineering support and other elements of fleet support. In September 1942, to promote efficiency and discipline in the auxiliary fleet, the State Defense Committee authorized the militarization of civilian crews on auxiliary vessels and service craft.

Naval aviation was strengthened considerably. Its inventory of bombers and torpedo bombers was expanded, and formations of attack aircraft were introduced. Naval aircraft, which numbered 757 in the autumn of 1942,¹⁷ totaled 1,430 by the end of 1943.¹⁸ Naval aviation gained the capability of delivering strikes throughout the entire depth of maritime theaters of war.

The result of the steps taken to improve the supply of naval materiel and to improve naval organizational structure was an increase in the Navy's combat efficiency. The Navy began to cooperate more actively with the Ground Forces, making an even greater contribution to the enemy's defeat.

The passing of the Soviet troops to decisive offensive actions, as well as the increased demands for materiel, brought further improvement in the organization and work of the rear services.

The growing volume of motor transport consignments and the problem of building and servicing military highways called for the creation of new administrative organs within the rear services. Accordingly, the Main Motor Transport Directorate and the Main Highway Directorate were formed in January and June 1943. Affiliated directorates and sections were formed at the front and army levels.

Changes also took place in the management of the Red Army's rear services as a whole. In June 1943, the Main Directorate for Red Army Rear Services was abolished. Its staff and personnel section were resubordinated directly to the chief of Red Army Rear Services, who was required to organize the rear in its entirety; to formulate plans and proposals to create and allocate administrative organs, units, and establishments to the fronts; and to manage the transport of armament, ammunition, rations, fuel, quartermaster stores, and so forth, to the fronts to meet requisitions made by the main and central directorates. The chief of Red Army Rear Services was vested with authority over the Central Directorate for Military Communications, the main directorates for motor transport, highways, quartermaster stores, rations supply, medical services, veterinary services, fuel supply, finances, administration and supply, and the two military academies for transport and for rear services and supply.

In June 1943, the State Defense Committee passed a resolution changing the procedure for transporting supplies in the Red Army. Responsibility

for transporting all types of materiel to subordinate units and formations was now vested in the senior chief. This had a significant effect on the timeliness of materiel supply to the troops.

In 1943, a number of steps were taken to improve the system of medical support for troops at the front. The Medical Service began work along evacuation axes, rendering medical aid to specific operational troop groupings rather than to isolated formations or field forces.

The rear services of the army in the field received much assistance with ammunition, fuel, rations, and other supplies from local party and soviet organizations and from the local populace. For its part, the rear elements helped local organizations to restore devastated schools, hospitals, flour mills, bakeries, and so on, in the front zone.

The Soviet military command solved the problem of creating and utilizing strategic reserves. If during the first year of the war, newly formed units and formations served as the principal source of the Supreme High Command Reserve, then from the summer of 1942 onward, such reserves were created, as a rule, by bringing out front-line formations or field forces that needed rest and replenishment. The entities withdrawn were brought up to authorized strength in personnel and materiel and were strengthened organizationally.

Timely creation of strategic reserves and their adept use contributed significantly to the success of offensive operations in 1943. Thus, during the 1942-43 winter campaign, the Supreme High Command reinforced the fronts from its own reserve with 4 tank armies, 29 tank and mechanized corps, 108 rifle divisions, 23 artillery divisions, 26 air defense artillery divisions, 19 air divisions, 16 engineer brigades, and many other units and formations.¹⁹ Combined arms reserves committed to combat during the summer and autumn of 1943 surpassed by a factor of more than two the corresponding commitment of the 1942-43 winter campaign. Air reserves featured a threefold increase on the same basis.²⁰ All this testifies to the intensity of the struggle on the Soviet-German Front, to the consummate art of the Soviet command in the creation and utilization of strategic reserves, and to the country's growing ability to strengthen the Armed Forces.

As the front stabilized, and as the offensive warfare waged by Soviet troops gained in scope, the training of reinforcements acquired increasing importance. The front needed soldiers of many specialities who were well versed in the use of complicated combat equipment. To solve this problem, some reserve brigades were transformed into training brigades in January 1943, and a number of newly formed tank brigades and self-propelled artillery regiments were designated as training units.

Volunteer units and formations were still being formed in 1943. For example, the Special Ural Volunteer Tank Corps was formed with monetary donations made by workers in the Urals. Siberian factories made the uniforms, equipment, and arms for the Special Siberian Rifle Corps. In the summer of 1943, a volunteer Cossack formation was assembled on the liberated soil of the Krasnodarsk Territory.

In 1943, the altered nature and scale of military operations demanded some restructuring of the partisan movement. In April, the Ukrainian Staff was resubordinated from the Central Staff to the KP(b)U* Central Committee. This permitted local conditions to be taken more fully into account, and it also made for more flexible coordination of partisan sallies with front operations.

The combat and diversionary activities of Soviet civilians in the enemy's rear acquired great military, political, and strategic importance. In weakening the Hitlerite military machine, civilians made a great contribution to securing a decisive change in the war, thereby helping to expel the enemy from Soviet soil. In the summer of 1943, the fascist German command had to use substantial forces to combat the partisans in its rear: more than 25 divisions and a large number of punitive units.

Military units from a number of European countries continued to be formed on Soviet territory during the second period of the war. The Communist Party and the Soviet government rendered comprehensive aid to these units, supplying them with armament, ammunition, and all manner of provisions. The first such unit, a Czechoslovak infantry battalion, joined the Voronezh Front on 30 January 1943.

On 29 April, the State Defense Committee authorized the forming of the 1st Independent Czechoslovak Infantry Brigade, which saw active service in the Left Bank Ukraine before the year was out. At the end of December, a Czechoslovak paratrooper brigade began formation in the Moscow Military District.

In the spring of 1943, responding to a request from the Polish Patriots' Union, the Soviet government granted permission for the Thaddeus Kosciusko 1st Polish Division to be formed on Soviet soil. This division was to have three infantry regiments, an artillery regiment, a tank regiment, and the necessary special units. The end of the year saw the completion of the 1st Polish Army Corps, which comprised the Thaddeus Kosciusko Division, two newly created infantry divisions, an artillery brigade, a tank brigade, and servicing units.

*[KP(b)U—*Kommunisticheskaya partiya (bol'shevikov) Ukrainy* 'Communist Party (of Bolsheviks) of the Ukraine'—U.S. Ed.]

Creation of the Tudor Vladimirescu 1st Rumanian Infantry Division was begun at the end of 1943. Creation of an independent Yugoslav battalion, 1,200 strong, was begun concurrently. The Normandie Air Squadron was formed from French aircrew personnel who had expressed a desire to fight together with their Soviet counterparts against Hitler's troops.

The numerical strength of foreign units and formations destined for duty on the Soviet-German Front rose sharply. Whereas at the beginning of 1943 such strength hardly exceeded 1,000 men, the corresponding figure for the end of the year was 44,000.⁴¹ Soviet military educational institutions trained the cadres for these foreign units and formations. Thousands of Soviet officer-instructors were sent to impart to them the combat experience gained in fighting the fascist German invaders.

Many of the foreign units formed on Soviet soil became the nucleus of the popular armed forces of a number of European countries committed to an active campaign against fascism. This was the first step toward strengthening the camaraderie between the fraternal peoples and their armies.

3. Cadre Training and the Growth of Combat Expertise. Intensification of Party-Political Work

By the beginning of the second period of the war, the Soviet Armed Forces had professionally and politically mature cadres with great experience in troop management acquired while fighting a strong enemy. The fact that the Soviet Army was now well equipped and well organized, and had passed to the offensive on a strategic scale, called for exemplary performance by command cadres, as well as by all Army and Navy personnel.

In Order No. 195, dated 1 May 1943, Supreme Commander J. V. Stalin called upon all servicemen to work indefatigably to refine their combat skills. He also required all combined army and branch commanders to become masters of military leadership, adept at planning coordinated action by all branches and skilled at controlling them in combat.⁴² This order underlay the program for preparing personnel to accomplish the impending formidable combat missions.

The military educational institutions continued to be the principal source of Army and Navy cadres. During the second period of the Great Patriotic War, command and political personnel were produced by 250 military educational institutions (more than 30 of them being higher institutions) and by more than 200 different officer courses.⁴³

During 1943, military schools and courses graduated about 360,000 young command and political officers for all services and branches of the Armed Forces. The Ground Forces academies produced more than 12,500 officers.⁴⁴

At the end of May 1943, the State Defense Committee passed a resolution abolishing the post of deputy company (or battery) commander for political affairs. That cutback was soon extended to the post of deputy chief of staff for political affairs at the corps, division, and brigade levels, as well as in air defense regions, fortified regions, and equivalent entities. The post of deputy commander for political affairs at the formation level and the post of deputy chief of political affairs for a military educational institution were merged with the post of chief of the political section. These measures released a large number of political workers, more than 122,000 of whom were transferred to command posts.⁴⁵

The Soviet Ground Forces, Navy, and Air Force were replenished with a large contingent of officers who combined good political training with rich combat experience.

An important source of command and political officers to replenish the Armed Forces was provided by the return of disabled personnel after medical treatment. In 1943, more than 250,000 formerly hospitalized personnel returned to active service upon completion of their convalescence. Besides, more than 7,000 officers were called up from the reserve during the year.

New insignia—shoulder boards—were introduced at the beginning of 1943. In July of that year, the Presidium of the USSR Supreme Soviet established a new procedure for awarding military ranks. This procedure was introduced to give officers greater authority and to increase their sense of responsibility in performing their military duty. All commanders and chiefs from junior lieutenant to colonel, inclusive, were to be called officers. Additional ranks for higher branch command personnel—marshal and chief marshal of aviation, artillery, armored forces, engineer troops, and signal troops—were introduced in January and October 1943.

By the time the Battle of Kursk began, in the reserves of fronts and armies there were 93,500 officers belonging to all branches who had combat experience and had received formal instruction in military theory.⁴⁶ Military districts and the personnel directorates affiliated with the branches had about 41,000 reserve officers at their disposal.

During the second period of the war, the Army and Navy no longer suffered the shortages of trained cadres that had plagued the 1941-42 period. This permitted the training program to be amended. The course of studies in all Ground Forces schools (except topographic and quartermaster) was

lengthened from 12 months to 2 years. The duration of junior lieutenant courses was extended.

The officer training program in higher military educational institutions was modified. By the end of 1942, special military academies had made the transition from the abridged training program to the full program. From May 1943 onward, this was true of combined arms academies also.

Officers, some of them generals, with demonstrated aptitude for command and control in combat situations were sent back for formal training. They concentrated on the in-depth study of combat experience, the mastery of new equipment and methods of employing it on the battlefield, and the firm acquisition of tactics and the basics of operational art.

The Soviet Army's triumphs during the second period of the war testified to improvements in the organizing ability of command personnel and in the combat expertise of the troops, and were evidence of the further development of the Soviet art of war. There was a radical change in the nature of the fighting during the 1942-43 campaigns. The offensive, which became the basic method of combat for Soviet forces, was characterized by its grand scale, its great determination, and its outstanding results.

The Supreme High Command's strategy was purposeful and consistent. To achieve victory, more diversified forms and methods of armed conflict had to be used during the second period of the war than during the first. The direction of hostilities by the General Headquarters and the General Staff was complemented by the creative initiative of front commanders, army commanders, fleet commanders, and their military councils.

In the 1943 encounters, the presence of representatives from General Headquarters at the fronts contributed to successful strategic direction. Such a development was dictated by the need for leadership that was in closer touch with the troops, by the need for more effective command and control, and by the need for better coordination between groups of fronts engaged in a single strategic mission. Among those who acted as representatives at one time or other were K. Ye. Voroshilov, A. M. Vasilevskiy, N. N. Voronov, L. A. Govorov, G. K. Zhukov, S. K. Timoshenko, and B. M. Shaposhnikov.

Contact between the General Staff and front and army staffs was improved by the following measure. In the summer of 1943, a special group of commanders for liaison with the troops, which had been in existence since 1942, was transformed into a corps of officers representing the General Staff. That corps became an important link in the operational command and control system.

Operations began to be conducted on a grand scale. The Soviet command mounted two huge counteroffensives: one at Stalingrad, the other at Kursk. Ten fronts comprising 50 armies (including 2 tank armies and 10 air armies) participated in the 1942-43 winter offensive. That offensive was fought in a zone 1,500 to 1,700 km in width and 300 to 700 km in depth. Nine fronts comprising 60 armies (including 5 tank armies and 9 air armies) participated in the offensive conducted during the summer and autumn of 1943. That offensive was fought on a 2,000-km front, and Soviet troops advanced to a depth of 350 to 600 km.⁴⁷

The feasibility of offensives on such a scale was not due solely to the constantly growing might of the Army and Navy. Another decisive factor in the turning point on the Soviet-German Front was the high level of professional expertise attained by the military cadres. The offensive operations conducted by Soviet troops were distinguished by their purposefulness, diversity of forms, and skillful choice of modes of action. The art of massing men and equipment on decisive axes was increasingly assimilated, thus making possible the attainment of crucial objectives by powerful assault groupings in front and army operations.

The problem of breaking through a deeply echeloned enemy defense and then developing the breakthrough to operational proportions was solved for the first time. Mobile formations were used skillfully as echelons for exploiting a success. In the large-scale operations conducted during the [1942-43] winter campaign, such echelons included tank, mechanized, and cavalry corps. However, from the summer of 1943 onward, the tank army became the principal means of exploiting a front's success.

Concentration of men and equipment on decisive axes, improved use of echelons for exploiting a success, and reinforcement of these with coordinated air power collectively imparted a resolute and highly mobile character to the offensive operations. Compared to the first period of the war, the average daily rate of advance had more than doubled by late 1943, reaching 10 to 29 km per day for combined arms armies and 35 to 40 km per day for tank armies.

The Soviet command became more versed in the art of planning and conducting defensive operations. The operational defense became deeper and more stable. During the first period of the war, the depth of the defense rarely reached 25 km for an army or 35 km for a front. By contrast, the defensive depths at Kursk were 40 to 50 km and 120 to 130 km for an army and a front respectively. Well-directed fire from all types of weapons, good preparation of the ground by engineer work, and wide maneuver with men and equipment resulted in rapid weakening of the enemy's offensive power.

The Soviet triumphs of the second period of the war were achieved by the joint efforts of all services of the Armed Forces. However, the leading role was played by the Ground Forces. They constituted the basis of the strategic groupings, and they accomplished the main missions confronting the Armed Forces: the breakthrough of the enemy's strategic front, the defeat of his groupings, the recapture of occupied territory, and the conduct of a stubborn strategic defense.

Increased skill in using air power played a significant role in the successful outcome of offensive and defensive operations. The employment of the Soviet Air Force was characterized by its massed use on main axes and by the concurrent use of several air armies in a single operation. In close coordination with the Ground Forces and the Soviet Navy, the Soviet Air Force annihilated the enemy's personnel and materiel, thus ensuring successful actions at the fronts. During 1943, the Soviet Air Force flew 835,000 sorties.⁴⁰ In operations conducted to gain air supremacy, the Soviet Air Force destroyed approximately 1,100 enemy aircraft.⁴¹

In 1943 the role of the Soviet Navy became much more active, as did its participation in the Soviet Army's offensive operations in maritime sectors. The fleets and flotillas safeguarded the Ground Forces' flanks against enemy attack from seaward, provided artillery and air support for the troops, conducted amphibious landings, secured external and internal communications, and disrupted the enemy's operational shipping. During 1943, the Soviet Navy sank 177 of the enemy's warships and submarines and 162 of his merchant vessels,⁴² while transporting more than 2,070,000 persons and about 20,874,000 tons of assorted cargo.⁴³

Commanders and personnel of the National Air Defense Forces became more skilled in carrying out their duties. In addition to performing their former air defense role of safeguarding key administrative and industrial centers and other areas of great military and political significance against air raids, the National Air Defense Forces took an active part in blockading encircled enemy groupings and supporting fronts in the conduct of large-scale offensive operations. In 1943, the National Air Defense Forces destroyed 1,615 enemy aircraft.⁴⁴ Their art of war was characterized by the wide maneuver of men and equipment and by the organization of defenses for targets on liberated soil.

On the whole, the offensive and defensive operations of the 1942-43 winter campaign and the 1943 summer-autumn campaign were planned and conducted more skillfully than earlier operations. The manner in which the services and branches of the Armed Forces were employed in operations was improved, as were the tactics adopted by them in actions. The acquisition of tactical skills by command cadres in all branches kept pace with the growing requirements of operational art.

The theory of combat in depth, developed by Soviet military thought in the thirties, was put into practice in the operations of the Great Patriotic War. Accrued combat experience was reflected in the 1943 draft Field Service Regulations, which required that a uniform distribution of men and equipment should not be tolerated in offensive combat, advocating instead massed blows against the most vulnerable sectors of the enemy's defense with superior forces of infantry, artillery, tanks, and aviation.

In accordance with the regulations, the tactical densities of men and equipment in the breakthrough sector were raised significantly, the combat formation of advancing troops was structured more deeply, and the rate of advance through the enemy's tactical defense was increased. In the counteroffensive at Moscow, Soviet forces had an average density of 15 guns and mortars and 2 to 3 tanks per kilometer of breakthrough sector, and the average rate of advance was 100 to 120 meters per hour. By contrast, in the offensive engagements fought during the summer and autumn of 1943 Soviet forces had an average density of 200 guns and mortars and 15 to 20 tanks and self-propelled guns per kilometer of front, and the average breakthrough rate reached one kilometer per hour.¹³

During the second period of the war, Soviet command cadres and troops mastered the art of crossing large water obstacles on a wide front from the line of march. This was a new phenomenon in the theory and practice of the offensive. A large water obstacle like the Dnepr River, which, according to prewar notions, could be crossed only after protracted and painstaking preparations, was surmounted by Soviet troops from the line of march almost simultaneously on a 750 km front, using the forward detachments of rifle, tank, and mechanized formations, which employed predominantly improvised means.

Soviet command cadres and troops gained tactical expertise in organizing and waging defensive combat. When the defense system composed of separate points of resistance (envisaged in prewar regulations) was found wanting, it was discarded in favor of continuous and deep defensive positions and zones based on a system of fire trenches and communication trenches that were well protected from enemy artillery fire, tank attacks, and air strikes. The depth of a tactical defense increased from 6 to 8 km at Stalingrad to 15 to 20 km at Kursk. By the summer of 1943, as compared with 1942, the tactical densities of the defending troops had almost doubled for infantry and had trebled or quadrupled for artillery, mortars, and tanks.¹⁴ This permitted the defensive firepower to be increased considerably, thus rendering the defense insurmountable for the enemy. The splendid results attained by Soviet troops in the defensive engagements at Kursk bore vivid witness to the acquisition of tactical expertise by the command cadres and the units and formations they controlled.

Combat training procedures were amended as dictated by war experience. Units and formations underwent especially intensive training when in the second echelon or in reserve. Exercises were conducted on training grounds arranged to simulate impending combat missions. Special attention was devoted to the planning and tactics of joint actions by infantry, artillery, and tanks in attack and in defense. When the situation permitted, rifle formations convened training assemblies that were attended by NCOs and private soldiers: machine gunners, mortar men, snipers, scouts, and so forth. At such assemblies, instruction was given in the use of weapons and in methods for combating the enemy and his equipment.

Of paramount importance was the timely replacement of NCO casualties in the course of combat actions. Accordingly, brief assemblies were convened in many formations to train soldiers for such posts as crew leader, section leader, and assistant platoon leader.

On the whole, the results of the second period of the war showed that Soviet military cadres, relying on the increased fighting strength and high morale of the Armed Forces, had attained a high level of tactical and operational expertise. These cadres proved the superiority of the Soviet art of war to that of the fascist German army and its officer corps.

The triumphs of the Soviet Armed Forces during the second period of the war were due in no small measure to the well-organized, purposeful work done by political organs and party organizations. The Central Committee was untiring in its endeavor to strengthen the Armed Forces' party ranks, to fortify the party's influence among the mass of enlisted men, and to increase the effectiveness of party-political work among the troops.

On 24 May 1943, in connection with the new missions confronting the Armed Forces, and in view of the abolition of the post of unit deputy commander for political affairs, the VKP(b) Central Committee passed the resolution "On Structural Changes to Red Army Party and Young Communist League Organizations, and the Augmented Role of Newspapers at the Division, Army, and Front Levels." In accordance with this resolution, the Main Political Directorate issued a directive, dated 4 June 1943, to define the procedure and time limits for restructuring party organizations in units of the various branches.

Primary party organizations were created in all rifle battalions, artillery battalions, cavalry squadrons, and equivalent units, but not in regiments, as had been customary. Party cell organizations, or party groups, were retained in rifle companies, batteries, and equivalent units. Young Communist League organizations were restructured accordingly.

The VKP(b) Central Committee deemed it necessary to introduce appointed party and Young Communist League organizers into the Army

and Navy; party bureau members were introduced into units of the army in the field. This restricted intraparty democracy to a certain extent but permitted prompt replacement of fallen party activists under combat conditions, ensuring continuity of political work in the units.

This restructuring of primary party organizations entailed certain changes to the party political apparatus in units, formations, and establishments.

Political organs finished restructuring party organizations before the 1943 summer engagements. The number of primary party organizations in the Soviet Armed Forces rose significantly. Whereas such organizations numbered 41,137 in the Army and Navy at the beginning of 1943, there were 67,089 by the beginning of 1944.¹⁶

The Central Committee's decision to restructure the party and Young Communist League organizations played a tremendous part in strengthening the Armed Forces. Party-political work was done on a grand scale and encompassed all levels of the military structure. Primary party organizations increased their aid to commanders in the accomplishment of combat missions. Such organizations improved their indoctrination work with party members and became more exacting in their demands of them.

The strength of party organizations in all services was replenished by admitting the best soldiers and commanders to the party. At the end of 1943, the Soviet Armed Forces had among their personnel 2,702,566 party members and more than 2,200,000 Young Communist League members.¹⁷ Party and Young Communist League organizations became closer to the personnel, including their own members at the front lines. Party members set a personal example of valor in combat. This example, supplemented by intensive political work, was the chief means of indoctrinating servicemen.

The military press also played an increased role in the indoctrination of personnel. However, the offensive operations of the 1942-43 winter campaign revealed a number of important shortcomings in the performance of newspapers at the division, army, and front levels. Accordingly, the Central Committee outlined a series of measures to broaden the role of such papers in the indoctrination process. In a resolution dated 24 May 1943, the VKP(b) Central Committee told the Main Political Directorate that "... strengthening the military press and converting its newspapers into a focal point for political work can only lead to invigoration of party work, to an abundance of party activists, and to an augmented role for party and Young Communist League organizations in the Red Army."¹⁸

To improve the management of daily newspapers published at division and army levels, the post of deputy chief of the agitation and propaganda section for press affairs was authorized for each front political administra-

tion. The editorial staffs of the newspapers were reinforced with able journalists with experience in reporting on military affairs.

Implementing the Central Committee resolution, Army and Navy political organs expanded the network of newspapers and improved their quality. In 1943, 150 new papers were founded. The total single-issue circulation of military newspapers exceeded 3 million copies."

The Army and Navy newspapers became more interesting and richer in content. Combat experience was widely publicized in their pages, and feats of heroism performed by individual fighting men or units were popularized. The Army or Navy newspaper successfully performed the work of Bolshevik agitator, propagandist, and organizer of the masses.

Defining the content of political indoctrination work, the VKP(b) Central Committee took into account the increase in the non-Russian component of the Army and Navy. In April 1943, special assemblies were convened for the benefit of front and military district agitators who worked with personnel of non-Russian nationality. Central Committee Politburo member M. I. Kalinin, chairman of the Presidium of the USSR Supreme Soviet, explained to assembly participants: "An agitator must always be a leader of the masses, inspiring them to follow him. The agitator's role is especially important in combat situations. It may well happen that even a good military unit, having sustained heavy casualties, loses faith in itself. At such a moment, an agitator can raise the soldiers' morale, thus bringing about a decisive turning point in the battle.""

The military's party and Young Communist League organizations became more active, and party-political work improved. As a general result, servicemen gained in political awareness, improved their combat skills, and displayed mass heroism. In 1942, the number of awards conferred for exemplary accomplishment of missions at the front was 407,314. The corresponding figure for 1943 was 1,824,202, constituting more than a fourfold increase."

Formations that had distinguished themselves in operations leading to the enemy's destruction at Stalingrad, in the Caucasus, on the Upper Don, at Kursk, or in the battle for the Dnepr were awarded the honorary Guards title. By the end of 1943, there were 116 Guards rifle divisions in the Soviet Army. Later, there were 8 Guards combined arms armies and 2 Guards tank armies.

In the autumn of 1943, the Presidium of the USSR Supreme Soviet established a number of new decorations as a further incentive to Soviet service personnel. The Order of Bogdan Khmel'nitskiy (Classes I, II, and III) appeared on 10 October, followed on 8 November by the Order of

Glory (Classes, I, II, and III). and by the Order of Victory, the highest Soviet military award.

Soviet sailors and soldiers, petty officers and sergeants, naval officers and army officers, admirals and generals were all exposed to a multifaceted, purposeful course of combat training and political indoctrination in the Army and Navy. As a result, they displayed creativity and judicious initiative in the mastery and employment of combat equipment, the study of war experience, and the development of new methods for planning and conducting combat actions in a specific situation. The Soviet Armed Forces became better organized, more experienced, and stronger, and were accomplishing with success the most demanding missions of the war.

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An extremely important and entirely new stage in the organizational development of the Soviet Armed Forces during the Great Patriotic War culminated in 1943. This stage lasted for more than a year, a period that saw substantial changes take place in the tables of organization and equipment for units and formations of all services, as well as significant advances in the art of war. The growth of the Armed Forces' fighting strength owed much to a continuous strengthening of morale and to the increased ideological and organizational influence of those whose daily concern was the combat training and political indoctrination of the troops: military councils, commanders, staffs, political organs, party and Young Communist League organizations.

The triumphs attained by the Soviet Armed Forces during the 1942-43 winter campaign and the summer-autumn campaign of 1943 led to a decisive turning point not only in the Great Patriotic War but in World War II as a whole. As L. I. Brezhnev pointed out, "The supremacy of our army in combat expertise, armament, and strategic leadership became clear to the whole world."¹ The stage was now set to further strengthen the Soviet Army and Navy so that the complete liberation of the Motherland and final defeat of the enemy could be achieved.

Notes

1. *Patriotic War Short History*, p. 284.
2. *World War II History*, VII, 49.
3. *Ibid.*, 57.
4. *Ibid.*, 97.
5. *Ibid.*, 57.
6. *Ibid.*
7. *Ibid.*

8. Ibid.
9. *Journal of Military History*, 1973, No. 12, p. 61.
10. Ibid.
11. *Fifty Years of the Armed Forces*, p. 333.
12. *World War II History*, VI, 366; VII, 64.
13. *World War II History*, VII, 82, 84.
14. Ibid.
15. *World War II History*, VIII, 43, 44.
16. *Fifty Years of the Armed Forces*, p. 334.
17. Ibid.
18. *World War II History*, VII, 98-99.
19. Ibid.
20. *Patriotic War Short History*, p. 312.
21. *World War II History*, VII, 100.
22. Ibid.
23. *Fifty Years of the Armed Forces*, p. 334.
24. Ibid.
25. Ibid., p. 334.
26. *Patriotic War Short History*, p. 312.
27. *Fifty Years of the Armed Forces*, p. 337.
28. *Journal of Military History*, 1967, No. 8, p. 37.
29. *Voyennyye svyazisty v dni voyny i mira* [Military Communications Personnel in War-time and Peacetime], p. 177.
30. M. V. Krasil'nikov and G. I. Petrov, *Istoriya khimicheskoy sluzhby i voysk khimicheskoy zashchity Sovetskoy Armii* [History of the Chemical Warfare Service and the Chemical Protection Troops of the Soviet Army], p. 152.
31. *World War II History*, VII, 101.
32. Ibid.
33. Ibid.
34. *World War II History*, VI, 20; VIII, 473.
35. *National Air Defense Forces*, pp. 199, 200.
36. Ibid.
37. *World War II History*, VI, 20.
38. *World War II History*, VIII, 140, 145, 150.
39. *World War II History*, VI, 476.
40. *World War II History*, VII, 490.
41. Ibid., 485.
42. J. Stalin, *O Velikoy Otechestvennoy voyne Sovetskogo Soyusa* [The Great Patriotic War of the Soviet Union], p. 192.
43. *The CPSU and the Organizational Development of the Soviet Armed Forces*, pp. 305-6.
44. *Fifty Years of the Armed Forces*, pp. 338-39.
45. Ibid., p. 338.
46. *Great Patriotic War*, III, 222.
47. *Fifty Years of the Armed Forces*, p. 383.
48. Ibid., p. 385.
49. *SAF in World War II*, p. 215.
50. *Great Patriotic War Short History*, p. 305.
51. *Fifty Years of the Armed Forces*, p. 386.
52. *National Air Defense Forces*, p. 253.
53. *Proizhizhniye takiki Sovetskoy Armii v gody Velikoy Otechestvennoy voyny (1941-1945 gg.)* [The Development of Soviet Army Tactics in the Great Patriotic War (1941-45)] (Moscow, 1958), pp. 213, 239.
54. *Istoriya voyennogo iskusstva* [History of the Art of War] (Moscow, 1963), II, 291.
55. *CPSU on the Armed Forces*, p. 323.
56. *CPSU History*, V, Bk. I, 377.
57. Ibid., 375; V. G. Yeremin and P. F. Isakov, *Molodezh' v gody Velikoy Otechestvennoy*

voyny [Young People During the Years of the Great Patriotic War] (Moscow, 1977), p. 88.

58. *CPSU on the Armed Forces*, p. 324.

59. *Great Patriotic War*, III, 231.

60. M. I. Kalinin, *O kommunisticheskom vospitanii i voinskom dolge* [Communist Indoc-
trination and Military Duty], p. 581.

61. *Ministry of Defense Archives*, f. 32, op. 11309, d. 167, l. 97-100.

62. I. I. Brezhnev, *Leninskim kursom. Rechi i stat'i* [Following Lenin's Course: Speeches
and Articles] (Moscow, 1970), I, 126.

Chapter 10. The Organizational Development of the Armed Forces During the Defeat of Fascist Germany and Imperialist Japan

(January 1944–September 1945)

1. Equipping the Army and Navy

The victories achieved by the USSR during the second period of the Great Patriotic War testified that the Soviet Armed Forces had gained significantly in fighting strength. They were organizationally and technically stronger and had a wealth of combat experience. In full possession of the strategic initiative, the army in the field constantly enlarged the scale of offensive operations, escalating the blows dealt to the fascist Wehrmacht with each passing day.

During the culminating period of the Great Patriotic War, the enemy was expelled from Soviet soil. The fascist bloc suffered total defeat, and Hitlerite Germany capitulated unconditionally. The Soviet Armed Forces liberated the peoples of Europe from occupation and brought them peace and freedom. Finally, the Soviet Union's entry into the war in the Far East hastened the defeat of militarist Japan.

Although the Communist Party Central Committee and the Soviet Supreme High Command had political and strategic plans for crushing fascist Germany completely, they realized that the enemy's resistance was not yet broken and that the Wehrmacht was still a force to be reckoned with. Hitlerite Germany and her allies still had considerable military resources at their disposal. Accordingly, a further great effort was expected from Soviet servicemen and civilians in order to increase the combat capability of the Armed Forces and the military power of the Soviet state.

As formerly, the essence of the state's military power was a highly developed war economy, providing the solid scientific, technological, and industrial base for a multifaceted defense industry. Owing to the Communist Party's extensive administrative and indoctrination activity, and to the Soviet people's selfless toil, the 1944–45 period saw further growth of

heavy industry, primarily in the leading sectors of metallurgy, fuel, and electric power, as may be seen from table 7.

Table 7. Output of Key Industrial Commodities in the USSR.¹

Commodity	1944	1945
Electric power, billion kwh	39.2	43.3
Coal, million tons	121.5	149.0
Oil, million tons	18.3	19.4
Iron, million tons	7.3	8.8
Steel, million tons	10.9	12.3
Rolled metal, million tons	7.3	8.5

As is evident from the table, Soviet heavy industry achieved unprecedented output during 1944-45. The country produced more coal, iron, steel, rolled metal, and electric power than during 1942-43. There was improvement in oil production, which had been one of the most backward sectors of the national economy before 1944. Industrial engineering enterprises performed well. Their 1944 output surpassed the 1943 figure by 11 percent and the prewar 1940 figure by 158 percent.²

The successes achieved by the Soviet economy provided a firm base for further development of defense production, thus ensuring the fronts an adequate supply of modern armament and combat equipment. The defense industry proved capable not only of replacing the materiel losses sustained during an unbroken offensive and of outfitting newly activated formations; it also managed to upgrade Army and Navy weapons and equipment at the same time.

In 1944, the 1891/30 model rifle was superseded by a carbine of the B. V. Semin type with a nondetachable, folding bayonet. Work continued on improvements to the DP-27 light machine gun. Several of its design features were improved by A. I. Shilin. The most important of these improvements was replacement of the drum magazine by a belt feed. The DPM, as modified, surpassed its German counterparts MG-34 and MG-42 in technical specifications but still did not quite meet the demands imposed by the infantry's increased mobility. Therefore, concomitantly with endeavors to improve the DPM, work was begun on a new design for a light machine gun. Of several such designs tested in 1944, Degtyarev's RPD was the most successful.

There was improvement in the supply of small arms. During 1944 and the first half of 1945, the defense industry produced more than 3 million rifles and carbines, and 2,800,000 machine guns and submachine guns, which made it possible to keep a substantial stockpile of these weapons.

Artillery and mortar pieces were improved. Rocket artillery was supplemented with 132mm and 300mm shells of improved accuracy. A more powerful rocket launcher, the BM-31-12, was issued. The inventory of 160mm mortars was expanded. Antitank artillery got a new 1944-model 100mm cannon, which had great range and armor-piercing capability.

The production of guns and mortars by type and caliber proceeded in accordance with the needs of the front. The output of some systems increased, while that of others diminished. During 1944 and the first half of 1945, the defense industry delivered 69,400 guns and mortars (not counting rocket artillery) to the troops.

Soviet armor underwent further development. All medium tanks began to be fitted with an 85mm long-barreled cannon. Despite some increase in weight, the T-34 tank's maneuverability and cross-country ability remained virtually unchanged after modernization, while its firepower, armor protection, cruising range, and operating reliability were all improved. The Soviet T-34 tank remained an unsurpassed, first-class vehicle throughout the war. The tank was designed so that improvements in combat characteristics could be made without changing the model as a whole.

The heavy KV tank also underwent modernization. By adding 2.5 tons to its combat weight, its armor thickness was increased from 40 to 60mm to 75 to 100mm. Its 76.2mm cannon was replaced by an 85mm long-barreled cannon.

A design team headed by Zh. Ya. Kotin developed a tank that was better armed and better armored than the KV without being significantly heavier. The new tank was the prototype of the JS heavy tank series. The best of this series was the JS-2, whose firepower was increased by a 122mm cannon fitted with a wedge-type semiautomatic breech mechanism. The JS-2 was also armed with a large-caliber air defense machine gun. A transmission redesign made the JS-2 30 percent faster than the KV tank. Finally, the JS-2 featured high reliability in service: when a malfunction did occur, lost time was minimal because the power plant had been designed for rapid replacement of parts and subassemblies under field conditions.

Soviet armored forces were issued a new self-propelled artillery mount fitted with a 100mm cannon (the SU-100), which became an effective means of combating the enemy's heavy tanks. While improving the quality of its product, the tank industry also increased its output. During 1944 and the first half of 1945, it gave the front 41,800 tanks and self-propelled guns, predominantly medium and heavy versions.³

At the party's bidding, Soviet aircraft designers began improving the basic designs for fighters, bombers, and ground-attack aircraft. Because

the Red Army's offensive operations were being conducted in depth, fighters had to have greater range. The Air Force began to get the Yak-9dd fighter, which had a range of 2,200 km, at the beginning of 1944. Industry started to produce the ultralight but well-armed Yak-3 fighter, which was supplied to Air Force units in large numbers from the spring of 1944 onward. By May 1945, the Air Force had received 3,550 such fighters from the aircraft industry. The La-7 fighter, which possessed high speed and a powerful armament, was a product of rapid development. By V-E Day, the Air Force had received 4,359 such aircraft.*

The Il-2 ground-attack aircraft was modernized. It got a more powerful engine, its armament was strengthened, and it underwent other design changes. By the end of 1943, the Il-10 was in series production.

The Pe-2 dive bomber remained the basic Soviet bomber until the end of the war. Its powerful engines, designed by V. Ya. Klimov, contributed to its high speed, a property which it combined with strength and maneuverability. The aircraft's control system was an advanced one for its day.

The TU-2 bomber, designed by A. N. Tupolev, began arriving at the front in 1944. It had a powerful defensive armament of cannons and machine guns, and a large bomb load. Its top speed was 547 km/h.

Better production technology and higher productivity of labor permitted aircraft output to be increased without additional factories. Whereas the average monthly output of aircraft was 3,355 for the whole of 1944, it rose to 3,483 for the first half of 1945. The number of combat aircraft produced during 1944 and the first half of 1945 was 48,600.¹

On the whole, the output of the most important types of combat equipment remained at a high level during 1944-45 despite the partial reconversion of industry. This was due to the need to continue the war in Europe, and then to participate in defeating militarist Japan. Besides, the Soviet Union was rendering considerable aid in munitions and other materiel to the fraternal armies of those European countries waging a campaign for national liberation against fascist Germany.

The Soviet Navy got new warships, aircraft, coastal defense and air defense materiel. Acquisitions included antisubmarine vessels, minesweepers, patrol boats, and motor torpedo boats. The new vessels came partly from Soviet shipyards and partly from Lend-Lease. At the beginning of 1945, the Navy had at its disposal 2 battleships, 5 cruisers, 43 leaders and destroyers, 128 submarines, and 1,525 other combat vessels.*

Altogether, 10,600 Yak-3 and La-7 fighters were built during the war years.

The availability of motor transport, engineer equipment, and signal means improved. By the beginning of 1945, the army in the field had about 600,000 motor vehicles. More than 80,000 of them were in supply units.⁷ In 1945, the army in the field had enough bridging equipment to permit over 60 km of 30 to 120 ton capacity bridge and 82 km of assault bridge to be set up simultaneously.⁸

At the beginning of 1945, the staffs of field forces received the modernized RAF-KV-5 radio for communication between the army and corps levels. Signal units in rifle and artillery units got the improved ultrashort-wave A7B radio. The availability of radio equipment improved considerably. In the Belorussian operation in the summer of 1944, more than 27,000 radios were shared by four fronts. By comparison, at the beginning of the Vistula-Oder operation, there were 24,000 radios of various types for just two fronts (the 1st Belorussian and the 1st Ukrainian).⁹

By the end of 1943, the potentialities of materiel resource and work force redistribution for raising the defense industry's output had largely been realized. Accordingly, from 1944 onward, such output was raised primarily by refining technology, by further organizing production, and by raising the productivity of labor.

In the combat actions fought in 1944-45, the Armed Forces of the USSR had an overall superiority in aircraft, artillery, and tanks. Constantly replenished with combat equipment, the Soviet Army more and more consolidated its fighting strength. By the beginning of the 1944-45 winter campaign, the Soviet Army enjoyed an almost fourfold superiority in guns and mortars, more than a threefold superiority in tanks and self-propelled guns, and a eightfold superiority in aircraft. These figures testify vividly and convincingly to the advantages of the socialist economy, to its viability, and to the correctness of Communist Party policy in the organizational development of the Armed Forces.

2. Improving Troop Organization

The final period of the war was characterized by further improvement in the firepower, striking power, and mobility of the Soviet Army and Navy. The organizational strengthening of the Soviet Armed Forces was a result of the changed conditions under which operations were being conducted, and of the altered nature of the armed conflict.

The Armed Forces' organizational structure as of January 1944 had stood the test of time and did not need substantial revision. That structure was quite adequate for the missions planned for the concluding period of the war. The changes made to it were minor and were caused by the shift of combat actions beyond the confines of the Motherland, by accrued ex-

perience in planning and conducting large-scale offensive operations united by common concepts and goals, and by the introduction of new means of armed conflict.

Structural improvement of the military administration and central apparatus continued. A State Defense Committee resolution dated 2 February 1944 announced a new membership for the Supreme High Command: J. V. Stalin, G. K. Zhukov, A. M. Vasilevskiy, A. I. Antonov, and N. G. Kuznetsov.

During this period, great importance was attached to the General Staff's work in generalizing and disseminating combat experience. Its section for the utilization of war experience was expanded into a directorate in March 1944. Sections for the study of war experience were created in the RKKA Main Political Directorate, the Central Staff for National Air Defense Fighter Aviation, the rear services staffs, the railroad troops staffs, and the Main Signal Directorate.

The steps taken to refine the Soviet Army's units, formations, and field forces organizationally were generally concerned with improving command and control and increasing striking power, firepower, and mobility. Consideration was also taken of the Soviet Union's commitment to enter the war against Japan.

When the front shrank, the number of field forces was reduced. By the end of 1944, the Karelian Front, the 3rd Baltic Front, the 7th Army, and the 54th Army had been disbanded. The administrations of these armies were transferred to the Supreme High Command Reserve.

The effective fighting strength of the fronts and the combined arms armies increased considerably. The front, which was an operational-strategic field force, customarily consisted of six to nine combined arms armies, 1 air army, and other formations and units. Depending on the importance of the sector, a front was reinforced with one or two tank armies. In comparison with the first period of the war, a front's effective fighting strength had increased 4 to 6 times in tanks and self-propelled guns, 4 to 5 times in artillery, and 4 to 8 times in aircraft.¹⁰

The combined arms army consisted of 3, and sometimes 4, rifle corps (as many as 9 to 12 divisions), 1 to 3 tank brigades, an army artillery brigade, and other formations and units. When fighting on a main axis, a combined arms army also had an attached tank corps or mechanized corps.

The basic rifle formation, the rifle division, underwent no essential change to its organizational structure. In the summer of 1944, Guards rifle divisions got a self-propelled artillery battalion. In view of the grand scale

of offensive operations, the rifle division was reinforced with control means and engineer support. In October, the signal company was upgraded to a battalion, and the 2-company engineer battalion was upgraded to a 3-company battalion.

Unlike the first years of the war, when rifle troops serving at the front were supplemented by newly formed divisions, from 1944 onward such troops were reinforced with replacement companies and battalions that were sent to the front reserve units. This method of manning and reinforcement had a positive effect on the fighting efficiency of the army in the field.

In the Moscow Military District alone, about 60 units and formations were engaged in training replacement reinforcements and various specialists. In May 1944, the reserve brigades and training brigades of this military district were replaced by eight training divisions whose officers had come from the army in the field or had been released from hospitals. These cadres, with a wealth of combat experience as well as methodological skills, ensured an accelerated output of well-trained reserves. Altogether, 1,020,000 officers and men were trained and sent to the front by the Moscow Military District during 1944-45.¹¹

Cavalry lost its significance as a branch. During the final stage of the war in Europe, the remaining cavalry formations were assigned various secondary combat missions.

By the beginning of 1944, the army in the field had a powerful artillery arsenal of 94,900 guns and mortars and 2,167 rocket launchers. The corresponding figures for the beginning of 1945 were 91,400 guns and mortars and 2,993 rocket launchers.¹²

As formerly, the trend in artillery's organizational development was toward increasing the number of Supreme High Command Reserve artillery formations and strengthening army artillery. Three-regiment artillery brigades were deployed on the basis of corps and army artillery regiments.

In accordance with a People's Commissariat for Defense order dated 2 August 1944, Guards mortar units were subordinated to the commander of Red Army Artillery. In view of the prospect of combat actions being fought in certain mountainous sectors, special pack mortar regiments were formed.

In August 1944, the creation of 4 artillery breakthrough corps and 11 artillery breakthrough divisions was begun in order to reinforce Supreme High Command Reserve artillery. By the beginning of 1945, the Ground Forces had 89 artillery divisions and rocket artillery divisions and 138 artillery brigades, tank-destroyer brigades, mortar brigades, and

rocket artillery brigades.¹³ Moreover, 35 percent of all guns and mortars were in Supreme High Command Reserve artillery units or formations.¹⁴ This ensured the maneuver of large artillery formations and permitted the creation of high artillery densities on decisive axes.

The fighting strength of the armored forces increased significantly. Whereas at the beginning of 1944 the army in the field had 3,300 heavy and medium tanks, and 1,900 light tanks and self-propelled guns, in January 1945 there were 12,900 heavy, medium, and light tanks and self-propelled guns.¹⁵

The organizational changes in the armored forces were directed toward greater striking power, maneuverability, and self-sufficiency by field forces and formations. The 6th Tank Army was formed at the beginning of 1944. The number of tanks authorized for a tank army was reduced from 654 to 620. At the same time, 189 self-propelled guns were authorized for a tank army. In tank corps and mechanized corps, the tank-destroyer regiments were replaced by self-propelled artillery regiments.

Three-regiment Guards heavy tank brigades (with 21 JS-2 tanks in each regiment) began formation in December 1944. Three categories of self-propelled artillery brigades were formed concurrently: light (SU-76), medium (SU-100), and heavy (JSU-152). Breakthrough tank regiments were rearmed with the new heavy JS tanks. The SU-85 self-propelled artillery regiments were rearmed with SU-100s. All independent tank brigades were put on a single table of organization and equipment that allowed each brigade 65 tanks.

In October 1944, most airborne formations were merged into the Independent Guards Airborne Army, which became the 9th Guards Combined Arms Army at the end of the year. Those airborne units and formations that remained were put under a newly created directorate for airborne forces, which was directly subordinated to the commander of the Air Force.

The engineer troops underwent further improvement. Army engineer battalions were merged to form engineer brigades for reinforcing combined arms armies, and to form motorized engineer brigades for reinforcing tank armies.

Signal troops also underwent organizational changes. As the number of signal units under the immediate authority of the Red Army's Main Signal Directorate had increased sharply, serious difficulties were encountered in their command and control. Accordingly, at the end of 1944, all independent units were merged organizationally into Supreme High Command Reserve signal brigades.¹⁶

The introduction of the posts of chief of operational communications in the Main Signal Directorate played a vital role in improving communications between the General Staff and fronts and armies, and in increasing the responsibility for the state of such communications.

In the summer of 1945, with regard to the remoteness of the Far Eastern theater of operations and to the need for better management of Soviet troops in the war against imperialist Japan, the State Defense Committee created a high command for Soviet troops in the Far East. Marshal A. M. Vasilevskiy was appointed commander in chief, General I. V. Shikin military council member, and General S. P. Ivanov chief of staff. Coordination of naval and air forces with ground forces was accomplished by Navy Commander in Chief, Admiral N. G. Kuznetsov and Air Force Commander in Chief, Chief Marshal of Aviation A. A. Novikov.

The Soviet Supreme High Command promptly transferred two front administrations, three combined arms armies, and one tank army to the Far East to create a powerful offensive grouping. In all, 27 rifle divisions, 7 rifle brigades and 5 tank brigades, 1 tank corps and 2 mechanized corps, and other units and formations from various branches were transferred 9,000 to 12,000 km. As a result, by August 1945 the effective fighting strength of Soviet forces in the Far East had almost doubled.¹⁷

Complicating such a huge transfer of men, combat equipment, and supplies was the fact that approximately 136,000 railroad cars were needed, all of which had to use the sole trans-Siberian line.

By the time the USSR entered the war against Japan, all Soviet troops in the Far East were merged organizationally to form three fronts: the Transbaykal Front and the 1st and 2nd Far Eastern fronts. These comprised 76 divisions, 4 tank and mechanized corps, 5 rifle brigades, and 24 independent tank and mechanized brigades. Operating jointly with the Soviet troops were four cavalry divisions and an armored car brigade of the Mongolian People's Revolutionary Army. Altogether, the deployed forces numbered more than 1,500,000 men, 26,000 guns and mortars, 5,500 tanks and self-propelled guns, and about 3,800 combat aircraft. Also called upon to participate in the combat actions were the Pacific Fleet, the Amur River Flotilla, three air defense armies, and three air armies.¹⁸

During the third period of the war, the structure of the Ground Forces was characterized by comparative stability in the relative strength of its basic elements. There was a slight diminution in the relative strength of combat troops, combat support troops, reserve units, and training units. At the same time, there was a corresponding increase in the relative strength of rear service units and establishments and all types of auxiliary troops. This trend was dictated by the need to ensure that the operational

fronts got timely and precise support from their rear areas, which were constantly expanding due to the Soviet Army's march westward.

The Soviet Air Force gained constantly in striking power owing to the quantitative and qualitative renewal of its aircraft inventory. Whereas at the beginning of 1944, the operational air force had just 10,200 combat aircraft, in January 1945, it already had 15,500.¹⁹

New air formations and field forces were activated, and their organizational structure was improved. Air corps of mixed composition were made homogeneous in the ground-attack, fighter, and bomber categories. At the end of 1944, the long-range aviation air corps were merged to become the Supreme High Command Reserve 18th Air Army. By the beginning of the final phase of the war in Europe, the combat air force and the Supreme High Command Reserve had 13 air army administrations and 155 air divisions in the ground-attack, fighter, and bomber categories.²⁰

The National Air Defense Forces acquired a wealth of combat experience, grew quantitatively and qualitatively, and became, in effect, a new independent service of the Armed Forces of the USSR. Air defense artillery continued to be the main means of combating the enemy's aviation. A majority of National Air Defense Force personnel served in air defense artillery units, and more than 20 percent were women.²¹

Owing to the growing number of objectives requiring protection against air raids, the need arose for additional air defense units and formations. Accordingly, new air defense brigades, divisions, and corps were formed in the summer and autumn of 1944. Air defense artillery regiments and air regiments were strengthened.

In the spring of 1944, to improve air defense control, the Western and Eastern air defense fronts were transformed into the Northern and Southern air defense fronts, respectively, and the Transcaucasian Air Defense Zone became the Transcaucasian Air Defense Front. Each front provided the air defense for various objectives, beginning with those on liberated territory and ending with those in the deep rear.

In December 1944, the State Defense Committee decided to make the air defense fronts smaller and to bring their control organs nearer to the armies in the field. Accordingly, the Northern Air Defense Front was transformed into the Western Air Defense Front (staff at Vilnius), and the Southern Air Defense Front was transformed into the Southwestern Air Defense Front (staff at Lvov). The Transcaucasian Air Defense Front continued to operate within its former boundaries. Corps and division air defense regions were made numbered air defense corps and divisions.

The administration of the Special Moscow Air Defense Army was transformed into the Central Air Defense Front (with its staff at Moscow), which was to exercise command and control of units and formations covering installations in the deep rear. At the same time, the Central Red Army Air Defense Staff was renamed the Main Red Army Air Defense Staff, and the Central Red Army Air Defense Fighter Aviation Staff was renamed the Main Red Army Air Defense Fighter Aviation Staff.

In 1945, the Maritime Air Defense Army, the Amur Area Air Defense Army, and the Transbaykal Air Defense Army were formed as part of the preparations for military operations against imperialist Japan.²²

By May 1945, the National Air Defense Forces had 4 fronts; 6 armies, including 1 fighter air army; 19 corps, 4 of them fighter corps; 18 air defense divisions and 5 independent air defense brigades; and 24 fighter air divisions. Altogether, the National Air Defense Forces had about 3,200 fighters, 9,800 medium-caliber air defense guns, more than 8,900 small-caliber air defense guns, and 8,100 air defense machine guns.²³

New naval units and formations were created for harassment of the enemy's sea communications, for antisubmarine warfare, and for minesweeping.

Certain flotillas and naval bases in the deep rear were disbanded. At the same time, new naval bases were built at Pechenga, Kara, and elsewhere. Moreover, the Tallinn and Riga coastal defense sectors were created. In November 1944, a division of marines was formed within the Red Banner Baltic Fleet.

At the end of 1944, the Soviet Navy numbered four fleets and four independent flotillas, which consisted organizationally of squadrons, brigades, naval bases, marine units, air divisions, and air defense formations.

During the third period of the Great Patriotic War, strategic reserves were created almost exclusively by bringing up to authorized strength units, formations, or field forces that had been withdrawn from an engagement or encounter.

The Soviet Army's triumphs at the fronts dictated certain changes in the direction of the partisan movement. In January 1944, noting that the greater part of enemy-occupied Soviet territory had been liberated, the State Defense Committee disbanded the Central Headquarters of the Partisan Movement. As a result, the direction of partisan forces was placed directly on the party organs of union republics, regions, and the corresponding staffs of the partisan movement. Accrued experience permitted improved cooperation between the staffs of fronts and armies and the partisan detachments and formations. The coordination of combat actions

fought jointly by partisans and Soviet Army units became more versatile and more complete.

Camaraderie between Soviet troops and their Yugoslav, Polish, and Czechoslovak counterparts was born and flourished during the early course of the Great Patriotic War, and the war's end saw similar relations between Soviet forces and Bulgarian, Rumanian, and Hungarian units and formations. This unity was most vividly displayed during the final phase of the war in Europe. In the Berlin operation, for example, Soviet field forces were accompanied by the 1st and 2nd armies, 1st Tank Corps, 1st Air Corps, and other independent units and formations of the Polish People's Army. In the Belgrade operation, the troops of three fraternal armies—Soviet, Yugoslav, and Bulgarian—fought side by side. In the Prague operation, Soviet, Czechoslovak, Polish, and Rumanian formations and field forces participated jointly.

Performing its international duty, the Soviet state rendered much aid to the foreign units and formations activated on Soviet soil. In 1943, the State Defense Committee authorized the creation of a special staff for the representative of the Council of People's Commissars and the Supreme High Command to efficiently solve all problems in rendering aid to foreign military units.

The following newly activated foreign units and formations were supplied with materiel for the 1944 summer-autumn campaign: 6 Polish infantry divisions, 3 Polish tank brigades, 1 Rumanian infantry division, 3 Czechoslovak rifle brigades, 1 Czechoslovak tank brigade, 1 French air regiment, and others. The Red Army's rear services also attended to the support of the Yugoslav People's Liberation Army and provided aid and supplies to the Bulgarian and Rumanian armies that were incorporated in Soviet fronts at the end of 1944.

At the decision of the Central Committee and the Soviet government, the Red Army's rear services were entrusted with supplying rations to the people of Berlin, Vienna, Budapest, Belgrade, Prague, and other cities. Much was done to provide the local populace with medical services. Special directorates were formed under the chief of Red Army Rear Services to perform this work.

Six divisions, each 5,000 strong, were formed and put at the disposal of the People's Commissariat for Internal Affairs to safeguard the army in the field's rear services and communications in East Prussia, Poland, Czechoslovakia, Hungary, and Rumania.²⁴

The nature and scope of the combat actions fought by Soviet troops in 1944-45 made new demands on the Armed Forces' rear services. The growing demand for materiel meant that more men and equipment had to

be allocated to provide it. At the same time, the movement that characterized combat actions made it essential to have rear service units and establishments that could relocate easily during operations.

A distinguishing feature of operational and troop rear services was an even more decided reduction in the depth of service areas. Such depth diminished to 150 to 250 km for a front, to 50 to 100 km for an army, and to 15 to 20 km for a troop service area.²⁵

All elements of the rear services got more motor transport. In a front, the load capacity of such transport reached 6,000 to 8,000 tons (as compared with 1,000 to 1,500 tons in 1943).²⁶

Railroad troops and road troops gained considerably in numerical strength, as did the Supreme High Command motor transport units. To plan, manage, and monitor Soviet troop movements by rail in Poland, Rumania, and Hungary, directorates headed by fully empowered representatives of the Red Army's chief of military communications were created. Military commandant offices and ration points were subordinated to these directorates.

People's Commissariat for Defense transshipment bases were established at the junctions of the most important Soviet and West European railroads. In addition, a large number of special posts of various kinds were created to evacuate and service prisoners of war.

When Soviet troops crossed the state border and began to fight on foreign soil, the Border Troops assumed an augmented role. As formerly, they, along with troops under the People's Commissariat for Internal Affairs, helped to safeguard the army in the field's rear services. In addition, they proceeded to guard the western border of the USSR throughout its entire extent.

Ten border districts were created during the summer and autumn of 1944, and their composition and frontier sectors were defined. The guarding of the state border was organized on this basis, as was the daily routine and combat activity of the Border Troops. Border detachments were soon formed, and as Soviet territory was liberated, these detachments moved up to the border to safeguard it against infringement.

Constantly reinforced with personnel and replenished with more powerful arms and combat equipment, the Soviet Army was much stronger than its counterpart of the fascist-militarist bloc during the final phase of the war. Whereas at the beginning of 1944 the army in the field had 94,900 guns and mortars, 5,200 tanks and self-propelled guns, and 10,200 combat aircraft, in May 1945 it had 115,100 guns and mortars, more than 15,000 tanks and self-propelled guns, and about 16,000 combat aircraft.²⁷

The increased striking power and firepower of the Soviet Armed Forces, together with their flexible and effective structure, ensured that the Great Patriotic War, and World War II in its entirety, would culminate in victory. The combat expertise of Soviet troops rose to new heights during the enormous offensive operations that characterized the war's final phase.

3. Military Cadres Acquire Further Operational-Tactical Expertise. Party-Political Work Among the Troops

By the beginning of 1944, the Soviet Armed Forces had developed a cadre training system that was well balanced and very effective. It was producing cadres for all services and branches of the Armed Forces and for all levels of command. Military cadres were being trained in 17 military academies, in 2 military institutes, in 8 military departments affiliated with civilian institutions of higher learning, in 184 military schools, and in more than 200 various courses. Naval cadres were being trained in 2 naval academies, in 5 higher naval schools, in 2 departments affiliated with civilian institutions of higher learning, in 8 naval schools, and in 7 advanced or refresher courses.²⁸ Military educational institutions trained 317,000 officers for the Soviet Armed Forces during 1944.²⁹

The main goals of the military educational institutions were to arm officers with the experience gained in the war and to improve their operational and tactical training. The generalization and utilization of combat experience assumed substantial proportions. When the General Staff established a directorate to generalize and study war experience, there was an increase in the volume of digests and bulletins issued to the troops and to military educational institutions publicizing the most instructive examples of behavior in real combat situations. About 600,000 copies of various publications on such subject matter were issued in 1944 alone.

Administrative staff and faculty vacancies in military academies and military schools were constantly filled by officers, some of general or flag rank, who were veterans with a wealth of wartime experience in command of units, formations, and field forces. All this had a positive effect on the quality of the instruction and indoctrination to which the students were subjected.

However, the best school for training command cadres and improving their military skills was, as always, the army in the field. There was no better way of learning to be an officer than to serve as one in the field. Here the knowledge acquired in the military educational institutions was tested, battle seasoning was obtained, and practical experience was accumulated in the command and control of units, formations, and field forces during engagements and operations. Thousands upon thousands of officers and

REPRODUCED AT GOVERNMENT EXPENSE
generals became experienced military leaders. They conducted complex tactical and operational missions with adeptness.

During engagements and operations command elements and staffs at all levels became skilled in command and control and in the accomplishment of complex strategic, operational, and tactical missions.

The activity of the supreme command element of the Soviet Armed Forces—the General Headquarters of the Supreme High Command—and of its working unit—the General Staff—was characterized by a more profound analysis of the situation at the fronts, by comprehensive formulation of plans for the conduct of the war, and by purposefulness and resoluteness in the attainment of assigned operational goals.

In 1944–45, the main mode of military operations was the strategic offensive. It was conducted, as a rule, by groups of fronts with the participation of the Air Force, Navy, National Air Defense Forces, and partisan groups.

It was during this period that the Soviet strategic leadership, relying on the ever-growing power of the Soviet state and the Armed Forces, planned and executed with great skill a series of sequential and simultaneous operations frontally and in depth that culminated in the total defeat of the largest enemy groupings and brought the war's end for Europe and the Far East.

The Soviet Armed Forces conducted several large-scale strategic operations in 1944. By a powerful offensive during the winter and spring of that year at Leningrad and Novgorod, in the Right Bank Ukraine, and in the Crimea, they completely smashed the Wehrmacht High Command's plans to stabilize the Eastern Front along the Dnepr River. The Red Army liberated the Right Bank Ukraine in its entirety, all of the Crimea, a considerable part of Belorussia, and the whole Leningrad Region. Soviet troops reached the state border with Poland and Czechoslovakia, set foot on Rumanian soil, and carried their combat actions beyond the boundaries of the Soviet Union. In the summer and autumn, the enemy sustained further blows in Karelia, Belorussia, and the Western Ukraine, in the Jassy-Kishinev area, in the Baltic area, in Yugoslavia and Hungary, and in the polar regions.

The very conduct of sequential strategic operations was a vivid manifestation of the great organizing ability and creative talent of General Headquarters, the General Staff, and the military councils at the fronts. The conduct of such operations made it possible to select the most advantageous axes and time, assure the element of surprise, pin down the enemy's reserves, force one's plans on him, and maintain a firm hold on the strategic initiative.

The strategic operations of the 1945 campaign were of a still more decisive nature. Whereas in 1944 the Soviet Armed Forces launched mainly sequential attacks that shifted along the front, in 1945 European strategic operations were conducted simultaneously along the entire front from the Baltic Sea to the Carpathian Mountains. The Vistula-Oder and East Prussian strategic operations were followed promptly, or after a brief pause, by the East Pomeranian, Berlin, and Prague operations.

The Soviet campaign in the Far East was a classic example of the art of strategic leadership. In nature and scope, this campaign was unparalleled during World War II. The offensive was conducted on a 5,000-km front with a depth of 600 to 800 km. In 25 days, the Soviet Armed Forces smashed the Kwantung Army of imperialist Japan.

On the whole, the Soviet strategic leadership enriched the art of war with experience in using decisive forms of offensive operations, many of which became models of combat actions for splitting up the enemy's strategic front and encircling his main groupings. As a rule, such operations began with a multiple breakthrough of the enemy's defense on several axes by powerful shock groupings, with subsequent development of the breakthrough in depth. The Soviet command used several types of strategic operations. One of the most effective was the advance along convergent axes, which culminated in the enemy's encirclement (the Korsun'-Shevchenko, Jassy-Kishinev, Budapest, East Prussian, East Pomeranian, Berlin, and Manchurian operations).

As the Soviet strategic leadership's organizational and creative capabilities increased, there was commensurate growth and refinement of operational expertise among Soviet military cadres. The skill displayed by the Soviet command in preparing and conducting the 1944-45 frontal offensive operations was apparent in the choice of axes for thrusts; in the missions assigned to combined arms armies, tank armies, artillery, and aviation; in the massing of men and equipment in the sector of the main thrust; in the organization and support of coordination between branches and services of the Armed Forces and other elements of the operational configuration; and in the materiel support of the troops. A front's breakthrough zone measured 10 to 15 percent of the entire width spanned by the zone of advance. In it were concentrated half or more of all rifle formations, the greater part of the artillery, and almost all the tanks and aircraft at the front's disposal for the conduct of the given operation. Besides increasing the rate of the offensive, this ensured high operational densities and the requisite superiority in men and equipment.

Fronts and armies underwent considerable growth in effective fighting and numerical strength, became well equipped with improved models of armament, and gained a great deal of combat experience. All of this had a significant influence on the nature and scope of operations.

By massing men and equipment in the sector of the main thrust, the enemy's tactical defense could be penetrated in 1 or 2 days at a pace of 10 to 15 km per day. Such a mission had been much more time-consuming during 1942-43.

During the 1944-45 offensive operations, the Soviet command became highly skilled in the art of developing a breakthrough operationally. The tank army became the principal means of exploiting a success. In a number of operations, notably in the Lvov-Sandomierz, Vistula-Oder, and Berlin operations, a field force of 2 to 3 tank armies operating in a single sector was used with devastating effect.

The depth of offensive operations was increased by wide use of mobile troops as echelons to exploit a success. Whereas in the Stalingrad counteroffensive Soviet troops advanced to a depth of 150 km, the corresponding figures for the Belorussia operation and the Vistula-Oder operation were 550 km and 600 km respectively. Moreover, the average rate of advance rose to 30 to 40 km per day, and on certain days it reached or exceeded 50 km.

The augmented depths and rates of advance attained were due in large measure to the increasingly adept use of air power. In particular, this was seen in the massing of aviation in the sector of the Ground Forces' main thrust, in the maintaining of air supremacy, and in the mounting of air offensives.

In the biggest offensive operations, as many as 2,000 or more Soviet aircraft were active simultaneously in the sector where the troops were making their main thrust.¹⁰ Aviation's main effort was directed toward coordinated action with Ground Forces. Being a highly mobile means of supporting combined arms armies and tank armies, aviation contributed to a rapid breakthrough of the enemy's tactical defense and to swift development of the offensive into operational depth.

The command, staffs, and troops of the National Air Defense Forces gained a wealth of experience in providing cover for installations in the front zone, and that experience contributed to further improvement of the operational and tactical expertise possessed by the air defense troops. In particular, there was improved coordination between fighter aviation and air defense ground defenses and the Ground Forces. Coordination was also improved between air defense units organic to the various services of the Armed Forces. Practical experience was obtained in the creation of a unified system for guiding fighters to an air target by radar. Maneuver to secure supremacy over enemy aircraft in the main sectors was accomplished more efficiently.

The Soviet Navy played an important role in the 1944-45 offensive operations. Commanders and staffs of units and formations acquired much experience covering the flanks of the advancing Ground Forces, blockading and destroying coastal enemy groupings, forcing water obstacles, and safeguarding friendly sea communications while disrupting those of the enemy.

The Soviet Navy accomplished its main combat missions in close coordination with the Ground Forces. The forms of such coordinated action and the methods used depended on the specific situation. Support to the Ground Forces by naval units and formations included, above all, fire support, systematic naval aviation strikes, amphibious troop landings, and transport of materiel.

The success of the 1944-45 frontal and army offensive operations was due in no small measure to the increased tactical expertise of the command cadres and of the units and formations led by them. The massing of men and equipment on breakthrough sectors was attained by avoiding their uniform distribution along the front. This massing was also achieved by narrowing the zones of advance and the breakthrough sectors while raising the density of men and equipment. At the end of the war, tactical densities in sectors of the main thrust reached 20 to 30 tanks and self-propelled guns and 200 to 250 guns and mortars per kilometer of breakthrough front.¹¹

Tank groupings for direct support of infantry began to be prepared in advance to accompany both the first and the second echelon of a breakthrough rifle division. This permitted a stronger showing by tanks and self-propelled guns in engagements fought in the depth of the enemy's defense.

New methods of using artillery were developed, with particular attention directed to the support and accompaniment of advancing troops. In 1944-45, Soviet troops often advanced behind a double barrage to a depth of 2 to 2.5 km.

Aviation forsook its episodic support of advancing troops that had characterized the second period of the war in favor of continuous accompaniment of such troops in the tactical zone of the defense, with simultaneous impact on its entire depth. This contributed to the successful breakthrough of a strongly fortified enemy defense.

During the 1944-45 offensive engagements, the troops gained much experience in forcing water obstacles, which was done mostly from the line of march. There was further development in the theory and practice of organizing and waging both day and night combat actions in large cities and on mountain, marshy, desert-steppe, and wooded terrain.

On the whole, the final period of the war was characterized by significant growth in the professional knowledge and organizing ability of military cadres. Officers, generals, and admirals of the Armed Forces mastered the theory and practice of planning and conducting engagements and operations, and showed great skill in the command and control of units, formations, and field forces, whatever the combat situation.

Party-political work in the Soviet Armed Forces reached a new level during the final phase of the Great Patriotic War, acquiring broad scope and efficacy. This was furthered by the wealth of experience accumulated by commanders, political workers, political organs, and party and Young Communist League organizations. The quality of party-political work and the content of political and military indoctrination were greatly affected by the new missions placed before the Soviet Armed Forces.

In 1944, Soviet troops mopped up the remnants of the fascist German invading force still to be found on Soviet soil, restored the integrity of the state border throughout its entire extent from the Barents Sea to the Black Sea, and carried the fighting beyond the boundaries of the country. The Communist Party and the Soviet government assigned the Armed Forces a twofold mission: to inflict total defeat on the hostile armies; and to help the peoples of Western Europe cast off the yoke of fascist bondage. This made new demands of party-political work. In May 1944, at the bidding of the VKP(b) Central Committee's Politburo, a conference for front-level military council members was convened to decide how to improve the political guidance of the troops and how to strengthen their internationalist indoctrination.³²

Political organs and party organizations embarked on an extensive program to familiarize personnel with the historical development, social order, and state regime of the countries about to be liberated, with emphasis on the disposition and correlation of class forces and the traditions and way of life of the people. Steps were taken to explain to the servicemen the content of important government documents and State Defense Committee resolutions on the necessity for Soviet troops to enter one country or another. These documents invariably emphasized that the USSR was concerned not with the acquisition of new territory but with the complete and final destruction of the fascist aggressor.

In a number of liberated countries, a complex internal political situation took shape. Soviet political organs and party organizations helped officers and enlisted men of the Soviet Army to assess the roles of the various levels of the local society from a class standpoint and to render all possible aid to progressive elements.

Such work acquired special significance in the fronts whose troops advanced into German territory. As the fascist German invaders had caused

the Soviet people so much grief and suffering, it was only natural that Soviet servicemen should harbor a feeling of righteous indignation toward the enemy. In these circumstances, it was necessary to work out a proper attitude toward the local inhabitants and to explain to each serviceman the Communist Party's instruction that the German people as a whole should not be confused with Hitler's clique. A People's Commissariat for Defense order dated 19 January 1945 stressed the need to avert behavior unbecoming to a Soviet Army soldier. The feeling of hatred toward the fascist invaders was not to be directed toward the civilian population. This principle was strictly enforced by the Soviet command and was correctly understood by all personnel. While crushing the military power of the fascist state and its satellites, Soviet servicemen were careful to respect the honor and dignity of civilians, their personal property, and the monuments of their material and spiritual culture.

From January through March 1944, the Main Political Directorate issued a number of instructions explaining how party-political work among the troops should be done during the final phase of the war in Europe. These instructions emphasized the need to take into account the specific character of each offensive operation.

As the war in Europe moved beyond the boundaries of the Soviet Union, it became necessary for political organs and party organizations to do political work among the local populace. Accordingly, more and more political workers with a knowledge of foreign languages were sent to the front. The Soviet Armed Forces' political organs began to publish daily newspapers for the public in the European country concerned. Such dailies told the truth about the USSR and the Red Army, disclosed the combat goals of the Soviet Armed Forces, and revealed the historic import of their great liberating mission.

There was an acute need for effective indoctrination work among reinforcements recruited in areas liberated from fascist occupation. As of mid-May 1944, more than 2 million men had poured into the Ukrainian fronts alone, most of them drafted from the liberated regions of the Ukraine." These men had long been exposed to fascist and bourgeois-nationalist propaganda. Many of them were semiliterate, had never served in the army, and had no military training whatever.

In March 1944, the RKKA Main Political Directorate issued a directive on indoctrination work with recruits from the liberated areas of the western regions of the Ukrainian SSR. In accordance with that directive, special agitational groups were created in units and formations for work with newly enlisted personnel. Their political studies were conducted under a special program. Newspapers, textbooks, and other materials were printed in Ukrainian to portray in popular form the essence of the

Soviet regime, the policies of the party and the Soviet government, and the requirements of the military oath.

Party-political work began to place greater emphasis on inculcating in the troops a sense of camaraderie with their counterparts in the other armies that were helping to destroy the enemy. In the accomplishment of this task, a great part was played by propaganda lectures, the military press, and meetings of officers and soldiers serving in fraternal armies. Contending heroically with the enemy, Soviet soldiers set an excellent example of fortitude in the struggle against fascism, and of selfless devotion to the common cause of victory. In turn, Soviet soldiers were deeply impressed by the heroic feats performed by their Czechoslovak, Polish, Bulgarian, Yugoslav, and Rumanian counterparts in their selfless campaign against fascist German and Italian troops for freedom and independence.

Despite severe losses, Hitler's army was still fit for combat at the beginning of 1944. The fascist German command counted on prolonging the war, thus gaining the time needed to rally its forces. Besides, the fascist German leadership hoped to sow dissension in the antifascist coalition, prompting the U.S. and Britain to make war on the Soviet Union. Striving to delay the inevitable doom, the enemy offered fierce resistance. As they withdrew, the fascist troops destroyed or mined roads, bridges, and industrial plants, carted off foodstuffs, drove away cattle, and left spies and diversionaries to do subversive work.

The VKP(b) Central Committee and the Supreme High Command cautioned commanders and political organs not to tolerate complacency or indifference but to maintain an aggressive spirit, strengthen morale, and improve combat expertise among the troops. The thrust and content of ideological work were defined in resolutions, instructions, and orders from the Central Committee and the supreme commander. Such directives emphasized the need to motivate all servicemen to secure the enemy's total defeat. An enormous role was played by these party slogans: "Onward, to the Final Defeat of the German Invader!", "Let's Finish Off the Fascist Beast in His Own Lair!", and "Let's Hoist the Banner of Victory Above the Fascist Den!"

Motivating the troops to accomplish their combat missions in an exemplary manner, military councils and political organs made great efforts to explain the military-political situation on the Soviet-German Front and the other fronts of World War II and to point out the importance of an impending operation for ultimate victory. Such an approach ensured that personnel understood thoroughly their role in the fighting, did their duty conscientiously, and, consequently, maintained a keen offensive spirit—a readiness to destroy the enemy.

In preparation for an offensive, intense training was conducted on specially prepared grounds. Special attention was paid to the need for well-coordinated action by infantry, artillery, tanks, and aviation when the enemy's main defense zone was being penetrated. The features of the impending operation and the nature of the terrain were taken into account in each instance. For example, the Belorussia operation was anticipated by training on marshy, wooded terrain; preparations for the Berlin operation included nighttime exercises and practice in forcing water obstacles.

The Manchurian offensive was accomplished by the joint efforts of the armies of two friendly socialist states: the USSR and the Mongolian People's Republic. The offensive mounted by the Transbaykal Front was preceded by a long march over desert terrain with limited reserves of drinking water. Subsequently, the Soviet-Mongolian troops had to surmount the almost impassable Great Khingan mountain range. For their part, the 1st and 2nd Far Eastern fronts faced the prospect of fighting on mountain-taiga terrain, forcing water obstacles, and breaking through the enemy's permanent defensive fortifications.

All of these circumstances were taken into account in combat training and in party-political work. The military councils of fronts and armies, as well as political organs and party organizations, focused their attention on improving the combat skills that would help to overcome the difficulties of an impending offensive.

To disseminate the latest war experience among the Soviet troops in the Far East, rallies and meetings were held for personnel who had received outstanding ratings in political and combat training. Political organs and party organizations turned to the heroics of the campaign waged by Soviet troops against the fascist German invaders. A unique feature of party-political work at that time was that combat training had to be done covertly, as war had not yet been declared. The operation order to cross the state border and wage war against Japan was conveyed to the personnel of all fronts in the Far East just 2 to 3 hours before the offensive was launched.

A local, but crucial, problem of party-political work was to overcome the psychological barrier in the consciousness of soldiers who had been transferred to the Far East. As the operations on the Soviet-German Front were drawing to a close, and final victory was near, it was only natural that the troops should yearn for a return home to peacetime conditions. Commanders and political workers explained the meaning of the new mission to the troops and helped them to understand its importance for the security of the Soviet Motherland.

The military operations of 1944-45 unfolded extraordinarily rapidly and dynamically. Under these conditions, commanders, political organs, and political workers of all ranks were obliged to show flexibility in their

work, to assign new missions to units in good time, to inspire a keen offensive spirit, to strengthen discipline and increase vigilance, and to ensure that personnel were well supplied with rations.

Political organs and party committees made it a matter of constant concern that each company and battery had a full-fledged party organization and that there were party and Young Communist League members in every section, team, and crew. This problem was solved by the admission of decorated warriors into the party and by proper placement of party members arriving as reinforcements.

By the beginning of 1944, the Armed Forces included 2,702,000 Communist Party members. Altogether, from 1 June 1941 to 1 July 1945, Army and Navy party organizations accepted 2,376,000 servicemen as party members and 3,788,000 as candidates for party membership. By the end of 1944, Army and Navy communists numbered about 2 million party members and 1 million candidates. The number of primary party organizations in the Army and Navy increased by 20 percent between 1 July 1943 and the end of 1944, amounting to 78,600.³⁴ The party stratum in the Army and Navy reached 23 percent and 31.5 percent respectively.³⁵ By the spring of 1945, every fourth serviceman was a communist.

While reinforcing the role of party members as the conduit through which party policy was conveyed to the mass of servicemen, the VKP(b) Central Committee was concerned to improve the quality of party organizations in the Army and Navy. Although favorably disposed toward the growth of party cadres, in October 1944 the Central Committee called for unwavering observance of the Leninist principle of admission to the party on an individual basis. The Central Committee insisted that its resolutions dated 19 August and 9 December 1941 be applied only to servicemen who had genuinely distinguished themselves in combat. These Central Committee instructions underlay the directive, issued by the RKKA Main Political Directorate, "On Serious Shortcomings in the Admission of Party Members and Candidate Party Members." The directive, which was ratified by the Central Committee's Organizational Bureau, condemned the urge to force the growth of party organizations artificially to the detriment of careful individual selection.

The growth of the party's ranks entailed intensified ideological and political indoctrination of party members. A uniform system of party studies was introduced in 1944. Political schools with a standard curriculum were formed and attached to primary party organizations. Party activists were taught at daytime and evening sessions of the divisional schools attached to political sections. By the end of 1944, the Soviet Army had 900 schools for party activists and 22,270 political schools with a total enrollment of 380,000 party members.

In 1944-45, a number of steps were taken to make the military's Young Communist League even stronger. By the beginning of 1945, the Army and Navy included 2,202,945 Young Communist League members, who belonged to 62,791 primary Young Communist League organizations.³⁶ An all-armed forces conference of Young Communist League workers took place in May 1944. The activity of the Young Communist League was discussed at this conference. The Main Political Directorate directive "On Improving the Work of Young Communist League Organizations" indicated ways the Young Communist League could make further progress.

Much was done to improve the training and indoctrination of political worker cadres. By the end of the war, the Soviet Army had 45 military-political educational institutions, and each front junior lieutenant course had an affiliated section that trained regimental party organizers and Young Communist League organizers. A higher military-political correspondence school began to function in 1944. Altogether, 70,000 political workers were trained in 1944-45."

An important part of the formative process of political workers was indoctrination and training in practical matters. When the situation permitted, political organs arranged gatherings or seminars attended by battalion and regimental Young Communist League and party organizers, deputy battalion and regimental commanders for political affairs, and workers from political sections at the brigade, division, and corps levels. Attention was paid primarily to the study of experience gained in party-political work in various types of combat. Political workers also familiarized themselves with new combat equipment and with the combat equipment and tactics employed by the enemy.

On 29 March 1943, the People's Commissariat for Defense issued the order "On Setting an Obligatory Minimum of Military Knowledge for Red Army Political Workers." Compliance with that order was concluded during the first half of 1944. Once versed in military affairs, political workers were better able to make sense of the combat situation, and their ability to do political work among the troops improved considerably. This growth in the military knowledge of political workers had a beneficial effect on the activity of party and Young Communist League organizations.

While propagating the ideas of the Communist Party among the mass of servicemen and motivating them to accomplish their combat missions, political workers themselves personified militant vigor, exemplary conduct, firmness, and fortitude in the struggle against the fascist German invaders.

On 3 March 1944, to encourage naval personnel who had distinguished themselves in battle against the enemy, the Presidium of the USSR Supreme Soviet authorized the award of orders and medals bearing the

names of two great Russian naval commanders: Admirals Ushakov and Nakhimov.

The third period of the Great Patriotic War occupies an important place in the organizational development of the Armed Forces of the USSR. It was characterized by their further technological and organizational strengthening and by improvement of their might and mobility. The Soviet Army and Navy crushed the Hitlerite German military machine and its imperialistic Japanese counterpart. The armies of the other states in the anti-Hitler coalition also contributed greatly to victory over the common enemy.

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The victory won by the Soviet Armed Forces in the Great Patriotic War was a historical inevitability. It was a result of the very nature of the Soviet social order and state regime, of the advantages of the socialist method of production, of the military organization of a socialist state, and of Marxist-Leninist ideology. The immediate utilization of these substantial resources was accomplished by the Communist Party, which skillfully activated the whole system of defensive measures and directed and concentrated the efforts of the entire Soviet nation and its Armed Forces toward one goal: the total defeat of fascism.

Because the fate of the Soviet state depended primarily on the combat efficiency of its Armed Forces, their strengthening and organizational development figured prominently in the Communist Party's program. The war showed that a socialist system's economic forms are the best, not only for meeting peacetime goals but also for mobilizing all the technological and economic resources of a country in wartime. In terms of the scale and growth rate of defense production, and its ability to supply troops with modern combat equipment, the Soviet economy proved to be much more efficient than that of fascist Germany.

The Soviet Army's armament and combat equipment underwent qualitative changes throughout the war. The army in the field got the latest models of small arms, artillery and mortars, tanks, and combat aircraft on an ever-increasing scale.

Much attention was paid to improving the organizational structures of the Army and Navy and to attaining a proper, scientifically substantiated correlation between the individual services and branches of the Armed Forces as dictated by the demands of war. The Ground Forces were preeminent. In numerical strength, they accounted for 80.7 to 87.2 percent

The Ground Forces were developed mainly in the direction of greater striking power and firepower, which was achieved primarily by reinforcement with armor and artillery. The percentage of armor in the Ground Forces rose from 4.4 percent in December 1941 to 11.5 percent at the beginning of 1945. The percentage of Supreme High Command Reserve artillery rose from 12.6 percent in June 1941 to 20.7 percent in the summer of 1943. The percentage of rifle troops dropped from 68.4 percent at the end of 1941 to 62.2 percent at the beginning of 1945. Cavalry dropped from 4.8 percent in December 1941 to 3 percent at the end of the war.

The Soviet Air Force made great strides during the war. The doctrine of massed use of aviation in decisive sectors dictated the merging of combat aviation forces into air armies. One characteristic trend in Air Force organizational development was the growth of Supreme High Command Reserve air formations. The new Air Force structure permitted centralized control of all combat aviation and allowed wide maneuver with air formations and numbered air armies. During the war years, the Soviet Air Force exceeded 8 percent of the Armed Forces' total strength.

The National Air Defense Forces, having passed through a number of development stages, acquired the features of an independent service of the Armed Forces, although this did not become official until later. In May 1945, the National Air Defense Forces accounted for 5 percent of the strength of the Armed Forces, as compared to 3.3 percent in December 1941. The National Air Defense Forces underwent substantial changes in organizational structure during the war. The result of such changes was the emergence of air defense formations and field forces with their own centralized control system, independent of fronts and military districts. Such an arrangement significantly increased the mobility and efficiency of the National Air Defense Forces.

The numerical strength of the Soviet Navy, expressed as a percentage of the Armed Forces as a whole, dipped from 5.8 percent in 1941 to 3.6 percent in June 1943, and then climbed to 5.3 percent by May 1945. Its submarine forces and light surface forces underwent development, as did naval aviation, especially conventional bomber aviation and mine and torpedo aviation. War needs caused the creation of a number of new naval flotillas, naval bases, sea defense regions, and marine corps units.

The Armed Forces' rear services were restructured organizationally in accordance with wartime requirements. Thus restructured, they were able to provide regular supplies and services, exercising effective control over their central elements and over those at the front, army, and formation levels.

The correctness of the prewar system for the training and indoctrination of military cadres was confirmed. At the same time, the war brought a

number of innovations in this area. Having reoriented their programs to suit the changed conditions, military academies, schools, and courses met with great success in their training efforts.

During the war years the Communist Party produced a brilliant corps of Soviet military leaders and commanders as well as thousands of able, bold officers who demonstrated on the battlefield their great organizing ability, political maturity, versatile professional knowledge, and selfless dedication to the socialist Motherland.

The course and outcome of the Great Patriotic War provided further confirmation of the validity of Lenin's tenet on the decisive role of the Communist Party in the socialist Motherland's defense against armed incursions by imperialist invaders, as well as in the organizational development and strengthening of the Soviet Armed Forces. All problems of military organizational development that arose during the war years were solved by party directives and decisions, which were based, in turn, on the party's scientifically substantiated military policy.

During the war years, there were significant changes in the character and conditions of Army and Navy party-political work: it expanded in scope and volume, and it changed in content, form, and method. The binding force in a troop unit was its party organization. The Leninist Young Communist League was the militant helper of the Army party member.

Despite the heavy battlefield casualties of party and Young Communist League members, their numbers in the army in the field increased constantly.

Political organs, party organizations, and Young Communist League organizations, being intimately associated with the daily life of the troops, were highly influential in strengthening discipline, maintaining good order, and raising morale. These organs and organizations reinforced in the servicemen's consciousness an awareness of socialist ideals and morality, a sense of responsibility for the fate of the Motherland, and a feeling of Soviet patriotism and proletarian internationalism.

Ideological conviction was an inexhaustible source of mass heroism among Soviet servicemen and commanders, and accounted for their indomitable spirit. Such conviction was a major factor contributing to the Soviet Union's great victory over fascism, a victory that permitted the country to return once again to peaceful, creative toil.

Notes

1. *Strana Sovetov za 50 let. Sbornik statisticheskikh materialov* [Land of the Soviets During

- ing the Past Fifty Years: A Collection of Statistical Data] (Moscow, 1967), p. 53.
2. *Patriotic War Short History*, p. 441.
3. *Fifty Years of the Armed Forces*, p. 391.
4. A. S. Yakovlev, *Sovetskiye samolety* [Soviet Aircraft], p. 69.
5. *Fifty Years of the Armed Forces*, p. 391.
6. Based on *Great Patriotic War*, V, 224, 226, 227, 237.
7. *The Rear Services of the Soviet Armed Forces in the Great Patriotic War*, p. 272.
8. *Great Patriotic War*, V, 384.
9. *Journal of Military History*, 1975, No. 4, p. 79.
10. *Ibid.*, p. 21.
11. *Ordena Lenina Mosk vskiy voyennyy okrug* [The Order of Lenin Moscow Military District] (Moscow, 1977), p. 318.
12. *Patriotic War Short History*, pp. 318, 460.
13. *Great Patriotic War*, V, 27.
14. *Vsemirno-istoricheskaya pobeda sovetskogo naroda 1941-1945 gg.* [The World-Historic Victory of the Soviet People, 1941-45] (Moscow, 1971), p. 85.
15. *World War II History*, VIII, 474.
16. *Journal of Military History*, 1975, No. 4, p. 79.
17. *Fifty Years of the Armed Forces*, p. 445.
18. *Ibid.*
19. *World War II History*, VIII, 473; *Great Patriotic War*, V, 27.
20. *Great Patriotic War*, V, 27.
21. *Great Patriotic War*, VI, 123.
22. *National Air Defense Forces*, p. 303.
23. *Journal of Military History*, 1975, No. 4, p. 48.
24. *Journal of Military History*, 1976, No. 1, p. 117.
25. *Tyl Sovetskoy Armii* [Soviet Army Rear Services], p. 243.
26. *Ibid.*, p. 247.
27. *World War II History*, VIII, 473; *Great Patriotic War*, VI, 48.
28. *Great Patriotic War*, V, 45.
29. *CPSU History*, V, Bk. I, 312.
30. *SAF in World War II*, p. 442.
31. *Istoriya voyennogo iskusstva* [History of the Art of War], II, 660.
32. *CPSU History*, V, Bk. I, 588, 589.
33. *Ibid.*, 514.
34. *Ibid.*, 370, 373, 375, 377.
35. *Party-Political Work in the Soviet Armed Forces*, p. 210.
36. *Journal of Military History*, 1975, No. 6, p. 34.
37. *The CPSU and the Organizational Development of the Soviet Armed Forces*, p. 207.

PART IV: THE ORGANIZATIONAL DEVELOPMENT OF THE SOVIET ARMED FORCES AFTER WORLD WAR II

Chapter 11. The Transition of the Soviet Armed Forces to a Peacetime Footing and Their Development During the First Postwar Years

(1945-53)

1. Reduction of the Armed Forces

When the Great Patriotic War was over, the Soviet people resumed their peaceful labor. During the prewar years, the Communist Party had already plotted a course toward completion of a socialist society and a gradual transition to communism, and had begun to create mature, developed socialism. Resuming this historic task, the party deemed it necessary, at the outset, to restore the national economy, which had been devastated by the fascist German invaders.

The Soviet Union emerged from the war politically stronger than it had entered it. At home, the people, party, and government were more unified, and abroad, the Soviet state enjoyed greater prestige and exerted greater influence.

The defeat of German fascism and Japanese militarism gave rise to radical changes in the correlation of forces on the international arena in favor of socialism. Eleven European and Asian states set out on the road of socialist development, and a worldwide socialist system was formed. The authority and influence of communist and labor parties gained strength. There was an expansion of the national liberation movement among Asian and African peoples, and the stand of international imperialism was weakened considerably.

A regrouping of forces took place within the imperialist camp. Only the U.S. emerged from the war significantly stronger economically and militarily. Occupying a dominant position among the capitalist countries, the United States began to have pretensions to worldwide hegemony and began to formulate its foreign policy "from a position of strength." After renouncing the political and economic cooperation that had become firmly established with the Soviet Union during the struggle against fascism, reactionary circles in the United States and Britain began to aggravate the international situation, unleashing against the USSR and the people's democracies the "Cold War," which for many years poisoned the atmosphere in foreign policy.

Striving to strengthen their political and strategic position in the world, those in power in the U.S. openly used their monopoly in nuclear weapons for threats and blackmail. After the first atomic bomb was detonated, President Harry S. Truman declared, "We are now in possession of a weapon that will not only revolutionize war but can alter the course of history and civilization."¹ Later, the U.S. Army Chief of Staff, General Maxwell D. Taylor wrote, "The American people were quick to believe that in the atomic bomb we had the absolute weapon which would permit the United States, its sole possessor, to police the world through the threat of its use."² The U.S. began to establish naval and air bases in many European, Asian, and African countries, promoting the aggressive "nuclear deterrent" and "massive retaliation" concepts that emerged from the idea of a preventive war against the USSR.

The U.S. Strategic Air Command was formed in 1936, receiving a large number of aircraft, including bombers armed with nuclear weapons. Its power was supplemented by the Atlantic and Pacific Fleet strike forces.

The aggressive North Atlantic Treaty Organization (NATO), with twelve member countries, was established under the aegis of the U.S. in 1949. In 1951, the states of the Anglo-American bloc signed an independent peace treaty with Japan. At the same time, Australia, New Zealand and the U.S. concluded the ANZUS Pacific Ocean pact.

This aggressive political course was accompanied by direct military actions. The united forces of international reaction suppressed a popular movement in Greece during 1947-49, and in 1950 the U.S. unleashed a war against the Korean people, creating a threat to the People's Republic of China.

Waging an active campaign for world peace and proceeding with the restoration and further development of the national economy, the Communist Party and the Soviet government took consideration of the heightened international tension created by the aggressive course of American imperialism and did not relax their attention to the defensive

capability of the country or to the organization of the Armed Forces. The Soviet nation remembered and fulfilled Lenin's behest that the steps toward peace must be attended by full military preparedness.

On 2 February 1946 the VKP(b) Central Committee published an appeal to all voters in connection with the elections to the Supreme Soviet. This appeal was an extremely important political document which set forth a vast program for the restoration of the national economy and for the further progress of Soviet society on the road toward the completion of socialism. It included the following passage: "In order that the Soviet people and all peace-loving nations may enjoy the blessings of peace and security, we must consolidate our hard-won victory. We must remember that there are still reactionary forces in the world, and that these forces are trying to sow dissension and hostility between nations."

The Central Committee's pre-election appeal contained the principal tenets of the party's military policy during the first postwar years. These tenets focused on strengthening further the logistical base of the country's defense, using the achievements of science and technology for this purpose, and reducing and reorganizing the Armed Forces with regard to the international situation, while at the same time increasing their vigilance and combat readiness.

In view of the special importance of questions on the organization of the Armed Forces, such questions were subjected to comprehensive discussion at Politburo sessions in January and February 1946. An extensive program of practical measures was outlined to implement the party's military policy. A special Politburo committee developed a plan for the organizational restructuring and further strengthening of the Armed Forces.

The Communist Party adopted the course of building a powerful, war-seasoned, regular army having the armament and numerical strength needed to ensure the reliable defense of the USSR and the people's democracies. The experience of World War II confirmed the correctness of the tenets of Soviet military theory and the correctness of the doctrine on the harmonious development of all services and branches of the Armed Forces. Consideration was also taken of the condition of, and trends in, the imperialist armies, as well as of a possible war's special features.

Reactionary circles in Western countries assumed that the colossal losses sustained by the socialist economy would eliminate the USSR from the list of great powers for a long time, and that its military strength would be very much less than that accumulated by the U.S. They also hoped that the Soviet nation would not withstand postwar competition with capitalism and would be obliged to capitulate before it. However, they were mistaken.

An extremely important condition for the Soviet nation's transition from war to peace was the massive demobilization of officers and enlisted men in connection with the reduction of the Armed Forces, which had a strength of 11,365,000 in May 1945. This was a major political and organizational task, on the solution of which the postwar development of the Soviet nation and its Army and Navy largely depended.

The law "On Demobilization of Older Age Groups of Active-Service Personnel" was passed at the first postwar session of the USSR Supreme Soviet on 23 June 1945. At that session, Chairman of the Council of People's Commissars of the RSFSR A. N. Kosygin said, "This law is not only of great political significance but is also of great economic significance. Millions of servicemen will return from the Armed Forces to peaceful, creative work and to their families. Our industry and agriculture will receive solid aid from the cadres of workers, most of whom acquired rich experience and new specialties in the Red Army. Our industry and agriculture will acquire the most valuable capital asset: people who have mastered complex military technology, and whose experience and skill will permit them to render an inestimable service and to exert a great force in the uplift and further development of the national economy."⁴

In the ensuing years the discharge of servicemen was conducted in accordance with edicts of the Presidium of the USSR Supreme Soviet. In all, there were six instances of demobilization. The first and second took place in 1945, and the third, from May through September 1946. Besides, older age groups were discharged in 1946 and 1947, and finally, all remaining older age groups were demobilized in 1947.

Reduction of the Armed Forces gave the national economy a huge number of diverse specialists. Altogether, about 8,500,000 men of 33 draft ages were demobilized from the Armed Forces by 1948. The strength of the Soviet Armed Forces was reduced to 2,874,000 men.⁵

At the same time, the party implemented various measures so that the Armed Forces retained key personnel who had passed through the school of war and were capable of successfully building a powerful Armed Forces. To this end, for example, it was not permitted to discharge officers with higher military, military-political, or military-technical education. Only 2.5 percent of such officers were discharged.⁶

The party's Central Committee and the Soviet government took the necessary steps to ensure the resettlement of those who had returned from the front, placing them in jobs and making it possible for them to resume their education. Demobilized servicemen received special grants to construct housing, purchase household effects, and normalize living conditions. Service in the Armed Forces, the partisan detachments, or the home guard was counted as continuous time served for work seniority purposes.

Special attention was paid to the needs of ex-servicemen who returned to areas where the economy had sustained severe damage as a result of the fascist German occupation.

The demobilized personnel were quickly assimilated into the work force and promptly engaged in sociopolitical activity, displaying great patriotic spirit and organizational talents as well as immense enthusiasm and energy. Merely among generals and other officers who were discharged to the private sector there were about 287,000 specialists, including more than 100,000 medical specialists and 46,000 schoolteachers.

Those discharged into the reserve were directed primarily into the sphere of material production. They swelled the ranks of the working class, the collective-farm peasantry, the intelligentsia, and the white-collar workers, multiplying the Soviet people's ability to deal with the problems facing them in the national economy. In Kazakhstan, for example, at the beginning of 1947 the number of blue-collar and white-collar workers increased by 250,000 due to the influx of demobilized servicemen.⁷

During the first postwar year, 139,700 enlisted men were resettled in the Krasnodarsk Territory; 60,000 were accepted by enterprises, construction projects, and collective farms in the Stalingrad Region; and 116,100 were given work in the Rostov Region; the corresponding figures for Severnaya Osetiya and the Groznenskiy Region were 12,100 and 15,900 respectively.⁸

The Soviet Motherland, the entire nation, welcomed the returning victorious servicemen as its sons. The central committees of the union republics, the municipal councils, the territorial, regional, and district committees, and the executive committees of local soviets energetically and efficiently solved the most important problems of resettling the demobilized servicemen, providing them with accommodations and improving their way of life. Military commissariats promptly registered the ex-servicemen and decorated them for their heroic feats. They also did a great deal of work preparing predraft youths for peacetime service in the Soviet Army and Navy.

The reduction of the Soviet Armed Forces permitted a large number of motor vehicles, tractors, and horses to be assigned to the national economy. By the fall of 1946, industry and agriculture had received about 150,000 motor vehicles and more than a million horses. Civil ministries and departments were assigned entire motor transport, road repair, and sanitary units and establishments, complete with personnel and materiel. The Soviet Navy returned more than 1,500 transport and fishing vessels to various shipping lines and departments.

Carrying out the demobilization, the Communist Party and the Soviet government foresaw the inevitability of serious changes in the military's

personnel. Personnel leaving the Army had rich experience in life and combat and a profound knowledge of military service. They had developed and sharpened military skills, organization, and discipline in battles with the Motherland's enemies during the most difficult period of her history.

Among the demobilized were many party members. Just from June 1945 through January 1946 their strength in the Army and Navy dropped from 2,974,000 to 1,815,000, while the number of primary party organizations dropped from 80,400 to 59,400.⁹ Altogether, more than 2,600,000 party members returned to territorial party organizations from the Armed Forces. There was considerable turnover in the membership of Young Communist League organizations.

Party members returning from the Armed Forces strengthened local party organizations. For example, 460,000 party members and candidates for membership came from the Soviet Army into the territorial party organizations of the Ukraine, accounting for more than two-thirds of the entire strength of the Communist Party of the Ukraine. Many party members who were ex-servicemen made careers in the government, in the party and Young Communist League hierarchies, and in the economic sector. According to incomplete data, there were more than 20,000 such party members in the Moscow party organization alone.

When implementing the large-scale organizational measures to place the Armed Forces on a peacetime footing, all-round consideration was taken of the changes in personnel in numerical strength, age, social status, and party affiliation so that fighting strength and combat readiness would not be weakened.

Formations and units were put on new tables of organization and equipment. They were stationed permanently in areas where the necessary logistical base was provided for planned combat training and political indoctrination of the troops. Questions on the reduction of the Armed Forces were the center of attention for the General Staff, for military council members in fronts, military districts, and fleets, and for local party organs.

Right after the end of the war, Soviet troops abroad began to be stationed on Soviet territory. Army and naval units and formations were withdrawn from Northern Norway, Czechoslovakia, Bornholm Island (Denmark), Manchuria (China), and from Northern Iran. During 1947-48, Soviet troops were gradually removed from Bulgaria and Korea. The number of units and formations temporarily remaining outside the borders of the Soviet Union was considerably reduced by agreement with the governments of the countries concerned.

Hand in hand with the civilian population, the servicemen of the Soviet Army and Navy strove to heal the wounds of war. On their shoulders lay many difficult tasks, not infrequently involving risk to their lives. One such task was to clear the terrain of mines after the expulsion of the fascist German invaders. On 12 June 1946 the Council of Ministers of the USSR passed a resolution making Army units responsible for clearing mines from former defense lines and especially hazardous areas, leaving the monitoring of other areas to specially trained teams of mine experts from the Society for Assistance to the Defense, Aviation, and Chemical Warfare Industries.

From 1945 to 1948, much work was done to make safe the former defense lines along major rivers and around large towns in the Ukraine. During this period, 13,700,000 mines, aerial bombs, and shells were rendered harmless and destroyed. In addition, more than 300,000 sq km of pasture, meadows, and woods were checked and made available to the national economy.¹⁰ In Belorussia, military units checked 36,000 sq km of terrain and 4,824 km of roads.¹¹

The teams of volunteers from the Society for Assistance to the Defense, Aviation, and Chemical Warfare Industries were of considerable help to the troops in clearing the terrain of dangerous explosive devices. According to incomplete data, these teams of volunteers rid 150,400 inhabited localities of mines, cleared 20,300 minefields, and destroyed 15,500,000 antitank and antipersonnel mines. By October 1946, all terrain assigned to them had been completely cleared of mines.¹²

Peacetime conditions engendered new forms of cooperation between the Soviet Armed Forces and the armies of the people's democracies. The Soviet government and military command rendered substantial aid in the establishment and organization of these armies and in the revival of the defense industry in the people's democracies. Armament was standardized. Officers of the fraternal armies were enrolled in Soviet military academies and schools.

The formation of a worldwide socialist system and the creation, in 1949, of the Council for Mutual Economic Aid reinforced the military and political cooperation of the fraternal countries. The exchange of technical documentation and specialists increased considerably, while the personnel, material, and facilities of the defense industry began to be used more rationally.

The flare-up of the Cold War and aggravation of the international situa-

tion obtained the Soviet Union to take a number of steps to ensure its per-

efficiency and combat readiness improved considerably. Such a course effectively prevented the imperialists from unleashing a general war during the hostilities in Korea, which began in the summer of 1950.

The Soviet Union began to supply the Korean People's Army, and the Chinese volunteers who joined battle on its side, with arms, munitions, transport, fuel, provisions, and medical supplies. There were Soviet military advisors in Korea. At the end of 1950, at the request of the government of the People's Republic of China, several air divisions were moved into China to cover the northeastern provinces of that country against raids by the U.S. Air Force. Had the situation deteriorated, the USSR was prepared to send five divisions into Korea to help the Democratic People's Republic of Korea repel the U.S. aggression.¹³

Thus, during the first postwar years the Communist Party and the Soviet government made a substantial reduction in the Armed Forces. Millions of Soviet citizens returned to peaceful, creative work. At the same time, the growing aggressiveness of imperialism demanded decisive action to raise the technological level of materiel in all services and branches of the Armed Forces.

2. The Advent of Nuclear Weapons. New Materiel for the Army and Navy

The postwar reorganization and reduction of the Soviet Armed Forces and the improvement of their weapons and equipment took place against a background of rapid technological and scientific progress. As early as the end of the war it became clear that the advent of nuclear energy and a new industrial technology, which held such great promise for the future of mankind, would be used by imperialism at the outset to create a weapon of mass destruction.

The leading power of the capitalist world—the United States of America—supported by a powerful military-economic base which had grown manyfold during the war years, forcibly expanded the production of nuclear weapons, using not only its own scientists and specialists but also their counterparts brought in from European countries, including Germany. From the preparation of experimental models, the U.S. made the transition to series production of atomic bombs designed for various purposes. The power of the strategic air command grew incessantly, as did that of the navy and of unmanned means of air attack. Counting on the "invulnerability" of the American continent, on the atomic monopoly, and on a network of overseas military bases, aggressive circles in the U.S. formulated plans for the annihilation of the USSR and all countries of the socialist community, striving by armed means to avert the disintegration of the colonial system of imperialism.

In such a complex and tense situation, the Soviet Union had to create its own atomic weapon in the shortest possible time, as well as a perfected means of delivering nuclear munitions. In addition, it had to prepare its troops for combat actions in which the enemy might use weapons of mass destruction. Meanwhile, the aggressive forces of imperialism had to be opposed by a powerful, war-seasoned regular army, considerably reduced in numerical strength but equipped with the latest types of conventional weapons.

The Communist Party and the Soviet government, assessing the prospects for the country's postwar development, saw scientific and technological progress as the decisive factor in raising the efficiency of production, in improving the material well-being of the nation, and in strengthening the defense of the USSR. Accordingly, in February 1946 the VKP(b) Central Committee indicated that "Soviet science and technology must make continuous progress and must advance in the front ranks of world science and technology."¹⁴

The country's main economic and political tasks in the first postwar years were defined by the 4th Five-Year Plan for the restoration and development of the national economy during 1946-50. This was ratified by the USSR Supreme Soviet in March 1946. The tasks were to restore the areas of the country that had suffered during the war, to attain the prewar levels of industrial and agricultural production, and then to surpass these levels by a substantial margin. The five-year plan envisaged as a top priority the restoration and development of heavy industry and railroad transport, the upsurge of agriculture and light industry, and a pace of technological progress that would permit the USSR not merely to match the achievements of science and technology beyond its borders but to surpass them in a short time.

Extensive measures were planned for training highly qualified specialists in the new technology.¹⁵ The appropriation in the 1946 state budget for the upkeep of research establishments was more than 5 billion rubles, which constituted a substantial increase and exceeded the 1945 figure by a factor of 2.4. In April the Soviet government authorized an extensive plan for capital construction on behalf of the Academy of Sciences of the USSR. A number of new institutes were created for physics, mechanics, organic chemistry, and radium research. Long-term plans for research were formulated to ensure the emergence of Soviet science and technology at the forefront of progress.

The Communist Party and the Soviet government took steps to expand the network of research institutes and design organizations, to strengthen them with qualified personnel, and to provide them with new equipment. Hundreds of scientific establishments and branch research institutes were created during 1946-50.

Owing to the scientific planning and well-organized direction of economic matters, to the redistribution of power resources, raw materials, and workers, as well as to the patriotic efforts of the people, the country's economic base developed at a great and stable rate despite the setbacks of the war years. Basically, the prewar level of industrial production was reached in 1948, and the prewar level of agricultural production was reached by 1950. By the end of the five-year plan, gross industrial production exceeded the 1940 level by 73 percent, and the 1945 level by 81 percent.¹⁶ "Confounding the enemies' insidious predictions of prolonged weakness of our state," said L. I. Brezhnev, "the Soviet nation promptly healed the wounds of war and made a huge leap forward. The material and spiritual conquests made in the postwar years stun the imagination with their grandeur."¹⁷ Socialism again demonstrated its strength and vitality."

Under the influence of scientific and technological progress, profound changes took place in the structure of industry, and these changes were of importance to the defense of the USSR as well. There was accelerated development of such leading industrial sectors as power production, mechanical engineering, chemical engineering, ferrous and nonferrous metals, and construction materials production. New sectors were created for missile development, nuclear power, electronics, and telemechanics. Comprehensive mechanization and automation of production was begun. Aircraft factories, shipyards, automobile and tractor plants were either renovated or built as entirely new facilities. The output of specialists rose steadily throughout the five-year plan period, during which 652,000 and 1,278,000 students graduated from the country's higher and secondary educational institutions respectively.¹⁸

The successes in completing the postwar five-year plan also created a firm base for the defense industry, thus permitting the troops to be provided with more modern weapons and combat equipment. As a result, one of the main tasks of the five-year plan was realized: "To ensure a further increase in the defensive capability of the USSR and to provide the Armed Forces of the Soviet Union with the latest weapons and equipment."¹⁹

The resolutions of the 19th CPSU Congress, held in October 1952, played an important role in the postwar development of the national economy of the USSR and in the building of the Armed Forces. The congress announced that Soviet foreign policy would be based on Lenin's dictum that peaceful coexistence of states with diverse social structures is possible. However, taking into consideration imperialism's growing aggressiveness, the congress called upon the party and nation to watch the machinations of the warmongers vigilantly and to strengthen the Soviet Army and Navy to the utmost.

The 19th Congress ratified the directives on the five-year plan for development of the USSR during 1951-55. High growth rates were specified for heavy industry. The prescribed target was to increase industrial production as a whole by 70 percent during the five-year period. The production of consumer goods and the means of production were to be increased by 65 percent and 80 percent respectively.²⁰ In agriculture, the goal was a considerable increase in gross and commodity output figures for crop and stock production. It was also planned "to double the state material and food reserves, a measure that would safeguard the country against various misfortunes."²¹

An important aspect of military technological progress during the first postwar years was that we developed and tested our own nuclear missiles and began production of the most effective prototypes. This was an extremely important prerequisite for accomplishing a revolution in military affairs, and it also permitted us to thwart the aggressive plans of imperialism, to preserve peace, and to strengthen the position of socialism.

While engaged in the creation of its own nuclear weapons, the USSR did not waver in the pursuit of arms limitation. As early as 1946, the Soviet Union was the first country to propose the abolition of such weapons of mass destruction, presenting an appropriate draft convention to the United Nations Organization.

Doubts were often expressed in the foreign press at this time that the Soviet Union could quickly solve the complex scientific and technological problems of nuclear weapons production. Many foreign military authorities claimed that the USSR would take 10 to 15 years, or even 20 years, to harness the energy of the atom, during which time the U.S. would be so far ahead that it could not be overtaken in military supremacy.

However, these forecasts turned out to be wrong. As early as the beginning of 1943 a research organization headed by Academician I. V. Kurchatov was at work on the problems of harnessing atomic energy. Owing to the selfless, heroic toil of Soviet scientists, inventors, engineers, technicians, and workmen, at the end of 1946 the first uranium-graphite reactor in the USSR went into operation. This was promptly followed by the construction of a number of powerful experimental and industrial reactors intended to produce fissionable material on a large scale. A substantial contribution to the solution of atomic problems was made by the Soviet scientists A. I. Alikhanov, A. P. Aleksandrov, D. I. Blokhinstsev, and others. An extremely important result of this work was the development of nuclear power engineering.

The beginning of Soviet production of fissionable materials was of immense importance for the defense of the USSR. In 1947 the Soviet

government announced that the secret of the atomic bomb no longer existed.²² In August 1949 the USSR tested its first atomic bomb. On 25 September 1949, the Soviet news agency TASS announced that the Soviet Union had mastered the production of atomic weapons. The U.S. atomic monopoly had been broken.

The new weapon was improved continually in the following years. Replying to a *Pravda* correspondent, J. V. Stalin announced that atomic bomb tests would proceed in accordance with the country's defense plans.²³

Theoretical and experimental work on the hydrogen bomb was successful. An extensive research program and a strong scientific and technological base permitted the Soviet Union to make and test such a bomb in August 1953, before the U.S. did so. The Soviet Armed Forces received this extraordinarily powerful new weapon, which strengthened the defensive capability of the USSR still further.

Concurrently with the creation of nuclear weapons in the Soviet Union, another highly important military technological problem was solved: development of the means of delivering nuclear weapons to the target. According to Soviet military thought, the best such method was the long-range guided ballistic missile. In making this choice, consideration was taken of its immense advantages over aircraft: greater range, invulnerability, ability to inflict mass attacks, suitability for use at any time of the day or night and under any weather conditions, amenability to launching from well-camouflaged positions, and high probability of reaching the target.

Development work on smokeless-propellant missiles of various classes and designations, and on high-altitude meteorological rockets powered by engines using liquid fuel, was progressing in the Soviet Union as early as the thirties. Such work was continued after the war. Scientists and designers made wide use of the theoretical and practical legacy of K. E. Tsiolkovskiy, F. A. Tsander, and others, and of experience in the use of jet technology during the Great Patriotic War.

The rapid development of missile technology made it possible to fire rockets into the upper layers of the atmosphere. The first launch of a rocket fitted with a sealed cabin containing test animals took place in the USSR. This testifies to the great successes achieved by the Soviet Union on the path to using space for peaceful purposes.

Much research, design, and engineering effort was concentrated on developing and refining missile technology. An outstanding contribution to the development and mass production of new missile weaponry was

made by Academician S. P. Korolev. Powerful multistage missiles were designed under his leadership.

In 1947, development work on the first Soviet rocket, the R-1, was completed, and it was issued to Soviet troops soon afterward. During 1947-49, Soviet scientists and designers developed and tested more powerful liquid-fuel rocket engines. Next to be designed were ballistic missiles, which rightly became the pride of the Soviet missile sector.

Inclusion of missile weaponry in the armament inventory required setting up test ranges where methods of using such weaponry could be developed.

In July 1946, the first missile unit was formed as a component of a Guards mortar regiment. This unit made a substantial contribution to the mastery of various types of missiles. The experience accumulated by this unit was later used to improve the structure of missile units, to develop methods for using missiles in combat, and to develop procedures for training personnel in such methods. In subsequent years, the Soviet Army formed new missile units armed with long-range missiles.

The scientific and technological progress of the postwar years was linked with the rapid development of mathematics, cybernetics, electronics, telemechanics, and other exact sciences. Of especially great practical significance was the work done by mathematicians on automated computational processes. On 6 April 1949, the Council of Ministers of the USSR passed a resolution indicating the need to expand the industrial base of computer manufacture, the need for a sharp increase in the production of the latest types of Soviet-made computers, the need for the most rational utilization of available computers, and the need for a training program to produce personnel versed in machine computing. This resolution made the Ministry of Armament and other ministries responsible for crucial work in machine computing and computer technology.²⁴

The successes achieved in electronics and mathematics permitted the first electronic computers to be made. Teams of scientists under the leadership of S. A. Lebedev and I. S. Bruk developed the first high-speed computer systems. The small electronic computer M-1 came into general use in the USSR in 1952.²⁵ The way was open for automated computers to be promptly refined and put into mass production. A large electronic computer made at the Academy of Science's Institute for Precision Mechanics and Computer Engineering went into operation in the fall of 1952. At the time, it was one of the fastest computers in the world, having an average speed of 8,000 operations per second. The first generation of electronic computers—vacuum-tube machines—went into series production in the Soviet Union in 1953.

Electronic equipment, punchcard tabulators, and computers were put into use in all services and branches of the Armed Forces and became one of the most important measures of technical excellence and combat readiness. The conditions were set for the advent of new automated command and control systems, and there was a marked improvement in the reliability and effectiveness of the operation and application of combat equipment and weapons.

Concomitantly with the development of nuclear missile weaponry, rapid, large-scale improvements were made to conventional armaments. The Armed Forces were equipped with unsurpassed artillery and armor, small arms, new air defense weapons, jet and turboprop aircraft, and more powerful surface ships and submarines.

Artillery, which had displayed its outstanding qualities during the war, improved considerably in performance and maneuverability during the postwar years. Artillery and mortar units and formations received the new D-48 85mm antitank gun, the D-74 122mm gun, the M-46 130mm gun, the M-47 152mm gun, and the 240mm mortar, as well as ground-target acquisition and location radars. There were recoilless antitank guns with shaped charge and fragmentation shells. The new guns had great range and armor-piercing capability, better maneuverability, and a higher degree of automation in loading and aiming. The new 57mm and 100mm air defense guns, which had a high rate of fire and a high ceiling, went into service. The artillery of the war period was modernized.

Rocket weaponry received further development. The newly introduced BM-14, BM-24, and BMD-20 systems were considerably better than the famous Katyushas (M-8 and M-13) of the Great Patriotic War.

Much attention was paid to improving the mobility and maneuverability of artillery and, consequently, to improving its ability to support the combat actions of the Ground Forces. The 57mm and 85mm guns in service began to be equipped with motorcycle engines to enable them to move short distances in battle. Artillery units received new prime movers, permitting even heavy artillery systems to be moved at 25 to 30 km/h, as compared with the 6 to 10 km/h towing speed of the wartime tracked prime movers.

The Ground Forces were equipped with medium and heavy tanks with stronger armor, more powerful armament, increased range, and greater speed. They were also equipped with amphibious tanks. The new T-54 medium tank, developed by a group of Soviet designers under the leadership of A. A. Morozov, was considerably superior to the old T-34 tank in technical specifications. With a weight of 36 tons, it had strong armor protection, carried a 100mm gun, and had greater range.

The troops received a large number of motor vehicles from industry, thus permitting all personnel to be transported together with the arms, equipment, and stores needed for combat actions and subsistence. Besides automobiles and trucks, rifle units and formations got armored personnel carriers, which formerly had not even been supplied to mechanized or tank formations.

Special troops were also supplied with improved equipment. Engineer troops received self-propelled and motorized water-crossing equipment, powerful excavating machinery, and other new equipment, whose relative importance in the makeup of combined arms units and formations rose considerably. Signal troops also made a great leap forward. They were equipped with improved shortwave and ultrashortwave radio sets. New types of special radio receivers, mobile communication centers, and radio relays made their appearance. Chemical troops, road troops, and other special troops also made progress.

The Soviet Union's constantly growing economic, scientific, and technological base permitted the transition of Soviet military aviation from piston-engined aircraft to turboprop and jet aircraft. In December 1945, the development of jet engines and jet aircraft was specially discussed by the party's Central Committee and the government. During the postwar years, many models of jet aircraft and jet engines were forthcoming from the design bureaus of A. N. Tupolev, A. I. Mikoyan and M. I. Gurevich, S. A. Lavochkin, S. V. Il'yushin, P. O. Sukhoy, A. M. Lyul'ka, O. K. Antonov, G. M. Beriyev, A. S. Yakovlev, V. Ya. Klimov, and others. The first flights of the MiG-9 and Yak-15 jet fighters took place in the Soviet Union in April 1946.²⁶

The new jet aircraft were displayed in August 1946. With much praise for this display, a *Pravda* lead article noted, "The use of jet engines greatly increases the possibilities for aviation. The latest equipment, including radar installations, permits aircraft to be flown at any time of the day or night and in any weather."²⁷

During 1947-1950, the party's Central Committee and the Soviet government adopted a number of resolutions on the development of Soviet turboprop and jet aircraft and the reequipping of aviation units and formations with such aircraft. Several new models of jet aircraft with improved armament and equipment were put into series production. Turbojet engines were introduced into aviation, as were aircraft with new aerodynamic configurations, including some with swept wings. The stage was thus set for the appearance of military aircraft whose speed first reached, and then surpassed, the speed of sound.

The first jet aircraft to go into series production was the MiG-9 fighter. It had two RD-20 jet engines that developed a thrust of 800 kg each.

With a takeoff weight of 5,000 kg, the aircraft had a maximum speed exceeding 900 km/h. The MiG-9 had a powerful armament: one 37mm and two 23mm cannons. The Yak-15 jet fighter had approximately the same technical specifications. In 1946, these aircraft were issued to Air Force units in great numbers.

Soon after this Soviet fighter aviation began to get the MiG-15 and MiG-17, La-15, Yak-17, Yak-23, and other aircraft. They developed speeds as high as 1,200 km/h, whereas the best piston-engined fighters made at the end of the war had a maximum speed of 600 to 700 km/h. Besides rapid-fire cannons, the jet fighters were fitted with rocket armament.

The jet fighters had considerably greater range, service ceiling, and rate of climb. They were fitted with improved optical sights, radio rangefinders, and intercept and fire-control radars. As a result, the accuracy and range of aimed fire from onboard weapons improved considerably, and it became possible to engage either air or ground targets under adverse weather conditions and at night.

To strengthen the National Air Defense Forces' aviation units organizationally and operationally, at the beginning of the fifties the party's Central Committee placed before the design bureaus the task of designing an all-weather night interceptor. After comprehensive trials, the Yak-25, an all-weather interceptor, was approved for service. It had great potential for further improvement and served as a basis for a whole series of supersonic interceptors for the National Air Defense Forces.

The performance specifications of bomber aircraft improved considerably. Initially, the principal long-range bomber was the Tu-4 with four piston engines, which was in routine production in 1947. However, with the rapid development of jet technology and air defense facilities, the Tu-4 was no longer capable of performing its combat missions, and it was replaced by the Tu-16 long-range jet bomber, whose maximum speed was close to 1,000 km/h. The six-man crew of the Tu-16 had a strong defensive armament at its disposal.

The Il-28 frontal bomber, which had two jet engines, went into series production in 1949. It had twice the speed and range of the piston-driven frontal bombers, and three times the bomb load. It had a powerful gun armament. This aircraft had what was at that time first-class navigation equipment for night flying and for blind bombing under adverse weather conditions. For many years the Il-28 was the principal frontal bomber of the Soviet Air Force.

The size of aerial bombs increased, and their inventory was expanded. The aerial bombs made at that time were intended primarily for use by bomber aviation.

Military Transport Aviation underwent substantial changes. It was supplied with Il-12 and Il-14 aircraft, which had great cargo capacity and better performance specifications than earlier transport aircraft. Issue of the Mi-1 and Mi-4 helicopters was begun.

To ensure the successful landing of airborne forces, such forces were provided with heavy gliders and cargo parachutes capable of dropping a 57mm or 85mm gun, a light self-propelled artillery piece, or a small motor vehicle.

By virtue of its increased combat capability, the Soviet Air Force would be able, in the event of war, to deal crushing blows against the main groupings of the enemy's ground and naval forces, as well as to mount attacks against vital points in his rear. The probable depth to which the Air Force could penetrate the enemy's rear area, the degree of its maneuverability, and the assumed strength of the attack had all increased substantially since the Great Patriotic War.

New surface ships—cruisers, destroyers, torpedo boats, landing ships, and other warships—entered service in the Soviet Navy. These craft had excellent seagoing and maneuvering qualities as well as powerful gun, air defense, mine, and torpedo armament. They were equipped with improved instruments for navigation and fire control. Warships of prewar construction were modernized. Their surface, air defense, and antisubmarine armaments were strengthened, and improvements were made to equipment in other categories.

In the fifties, the construction of nuclear submarines began in the USSR, and a new page was turned in the development of the Soviet Navy. As nuclear power plants were much more powerful than any type of conventional engine, their use led to the creation of an essentially new type of submarine with virtually unlimited range, increased endurance, and high surface and submerged speeds.

In naval aviation, piston-driven aircraft gave way to jet aircraft. The Navy was equipped with long-range, missile-armed jet bombers.

The rapid, progressive development of the country's productive forces, together with its great scientific discoveries, technological innovations, and design achievements, enabled the Soviet Union, in a historically brief period, to create a modern defense industry capable of supplying the troops with new types of effective weapons and combat equipment. An

organizational restructuring of the Armed Forces was carried out concurrently.

3. Postwar Reorganization of the Army and Navy

After World War II, the main trends were formulated for an organizational restructuring of the Soviet Armed Forces to increase their fighting strength while maintaining their high level of combat readiness. Underlying the theory and practical work on the organizational development of the Armed Forces were the tested conclusions of Soviet military science and the tenets of Soviet military doctrine, which held that the aims of war are achieved by the combined efforts of all the services and branches of the Armed Forces through their skillful operational and strategic use and precise coordination.

Developing all components of the Soviet Armed Forces harmoniously, and attaching great importance to the improvement of each, the party's Central Committee paid special attention to those which would ensure the most effective combat use of the new weapons. After military organization had been discussed in the Politburo early in 1946, a number of important resolutions were adopted on changes in the organizational structure of the Armed Forces and the command and control elements. When adopting these resolutions, consideration was taken of war experience, Army and Navy organization, the achievements of science and technology, changes in the international situation, the potential of the Soviet economy, and the sociopolitical development of society. Also assessed comprehensively were the status and trends in the development of offensive weapon systems by the armies of the imperialist powers, and the possible nature of the war for which they were preparing.

At this time, the Armed Forces of the USSR consisted of three services: the Ground Forces, the Air Force, and the Navy. The National Air Defense Forces and the Airborne Forces were organizationally independent. As formerly, the Border Troops and the Internal Troops belonged to the Armed Forces.

Putting the Armed Forces on a peacetime footing involved substantial changes in the high command structure. The State Defense Committee was abolished on 4 September 1945 by an edict of the Presidium of the USSR Supreme Soviet. Additionally, Supreme High Command General Headquarters ceased to function.

In February 1946, the People's Commissariats for Defense and the Navy were reorganized by a resolution of the Council of People's Commissars of the USSR. As a result, the direction of the Army, Air Force, and Navy was unified in a single People's Commissariat for the Armed

Forces (from March of the same year, the Ministry of the Armed Forces). Under this ministry was the newly created Supreme Military Council, a collective body that included members of the Politburo and Central Committee and prominent military commanders.

Command and control of ground, air, and naval forces was exercised by the respective commanders in chief and their staffs. Under each commander in chief was a newly created military council for his service. The post of commander of the National Air Defense Forces was reinstituted, and its incumbent was subordinated to the commander of artillery of the Armed Forces. Steps were taken to strengthen the main staffs of the services of the Armed Forces with experienced officers. To ensure close cooperation between them, the chief of the General Staff, the chiefs of the services, and the chief of Soviet Army Rear Services became deputies of the minister of Armed Forces of the USSR.

In accordance with a decision made at the end of February 1946 by the Central Committee Politburo, the unified Main Political Directorate of the Army and Navy, vested with the authority of a section of the VKP(b) Central Committee, was created in the People's Commissariat for the Armed Forces, and a political directorate was created in each service. A political directorate was also formed in Long-Range Aviation.

To better organize troop training and to establish regular monitoring of its program, an inspectorate was formed in each service soon after the war, and the Main Inspectorate for the Armed Forces was created early in 1947.

In 1945, the territory of the Soviet Union was divided into 33 military districts, some of which were created after the war to speed up demobilization and the transition of the Army to a peacetime footing. The headquarters of fronts and of several armies were turned into military district headquarters. Units and formations stationed on foreign soil—in the eastern part of Germany, in Austria, Hungary, Poland, and Rumania—were united into groups of forces. A large troop grouping was located in the Far Eastern theater of operations. There was a ramified network of local military commissariats located in accordance with the administrative division of Soviet territory.

During demobilization, the size of the military administrative apparatus was also reduced—from ministry and senior staffs down to the staffs of formations and units. By the end of 1946, the boundaries of the military districts had been changed, and their number had been reduced to 21.

The changes in the boundaries of the military districts and the reduction in their number were made so that the sovereign interests of the USSR were safeguarded. For example, three military districts were formed on

Far Eastern territory in September–October 1945: the Transbaykal–Amur District, based on the Transbaykal Front; the Maritime District, based on the 1st Far Eastern Front; and the Far Eastern District, based on the 2nd Far Eastern Front. In May 1947, the commander in chief of the Far East made his headquarters in the Transbaykal–Amur Military District and had under his command the Far Eastern and Maritime military districts, the Pacific Fleet, and the Amur Flotilla. This headquarters was abolished in 1953 and then replaced by the sole district in the Far East: the Far Eastern Military District.

In February 1950, the Ministry of the Armed Forces was split into two ministries: the Military Ministry of the USSR and the Ministry of the Navy. The Supreme Military Council, created in March 1950 under the Council of Ministers of the USSR, became the highest state authority for all the Armed Forces. In March 1953, the two ministries were united as the Ministry of Defense of the USSR. The Main Military Council was formed. The services did not have political directorates during this period.

J. V. Stalin was people's commissar for defense, and then minister of the Armed Forces, until March 1947. From 1947 through March 1949, and again from March 1953, the ministry was headed by Marshal N. A. Bulganin. From April 1949 through March 1953, Marshal A. M. Vasilevskiy was minister of the Armed Forces, and then military minister.

A leading role in the command and control system for the Armed Forces was played by the General Staff and by the central and main directorates of the War Department. The chief of the General Staff until March 1946 was General A. I. Antonov; until November 1948 Marshal A. M. Vasilevskiy; through May 1952 General S. M. Shtemenko; and later Marshal V. D. Sokolovskiy.

During the first seven postwar years, the Main Political Directorate was headed, in turn, by Generals I. V. Shikin, K. V. Kraynyukov, and F. F. Kuznetsov, and from April 1953, by General A. S. Zheltov.

The experience in military organizational development showed the advantage of transforming the military councils into consultative bodies under their respective commanders in chief (or commanders). In mid-1950, the party's Central Committee decided to restore the military councils of districts, groups of forces, armies, fleets, and flotillas as collective troop control elements. Their powers were expanded considerably. The military councils were made wholly responsible for the troops' mobilization level, combat readiness, moral-political state, and discipline. Implementation of these measures left the personal authority of military commanders intact. Decisions made by a military council were formulated as orders, which were signed by the commander and his chief of staff. There was a return to

the practice whereby the membership of a military council included a political officer. A new statute on the military councils was enacted.

The measures adopted for the reduction and organizational restructuring of the command and control system for the Armed Forces met the requirements of the peacetime situation and were directed toward safeguarding the Soviet Motherland with an Army and Navy of relatively limited numerical strength. These measures made a new contribution to the theory and practice of Armed Forces organizational development, and they laid the foundation for further technical and organizational improvement under conditions of rapid military and technological progress.

The Ground Forces remained the premier service, and the one with the greatest numerical strength, during the postwar years. At the end of the war, the Ground Forces constituted more than 80 percent of the total strength of the Soviet Armed Forces. From June 1946 through March 1950, the commander in chief of the Ground Forces was Marshal I. S. Konev. During 1950-55, the Ground Forces were subordinated directly to the minister of defense.

The Ground Forces included rifle, armored, and mechanized troops, artillery, cavalry, and special troops in the engineer, communication, chemical, motor transport, road, and other categories. The overall trend in their organization was toward improvement in the firepower and maneuverability of all branches, while increasing the operational and tactical independence of units, formations, and field forces in the accomplishment of combat missions.

The basic operational field force of the Ground Forces was the combined arms army. In addition to combined arms formations, it contained army, antitank, and air defense artillery units as well as mortar, engineer, and other army units.²⁴ By 1953 the combined arms army had become, in effect, a mechanized field force capable of performing complex combat missions.

The highest combined arms tactical formation of the Ground Forces was the rifle corps, whose maneuverability and firepower had been improved by the inclusion of a mechanized division and several new corps artillery units. As a result, by 1953 the weight of a corps' volley (not counting tanks, self-propelled guns, and air defense artillery) was more than 37 tons, which was seven times greater than the figure for the end of the Great Patriotic War. In maneuverability, the corps was not inferior to a tank army of the war years, and it could perform combat missions befitting such an operational field force as a wartime combined arms army.

The rifle division remained the basic combined arms tactical formation. However, its organization also underwent substantial changes during the postwar years. The rifle division got a self-propelled gun and tank regi-

ment, and each rifle regiment got a battery of SU-76 self-propelled guns. Owing to its full complement of tanks, self-propelled guns, automobiles, prime movers, and armored personnel carriers, the division became more mobile. According to the 1948 table of organization and equipment, the division's motor vehicles, prime movers, and armored personnel carriers numbered 1,488, whereas in 1944 they numbered only 419.²⁹

The division received newer and better small arms: submachine guns and heavy machine guns, antitank grenade launchers, recoilless guns, mortars, and other types of weapons and combat equipment. This improved the firepower and combat capability of units and made them more independent and better able to conduct both active, offensive combat and a sustained defense.

Cavalry formations underwent no further development and were finally abolished in 1955.

During the postwar years, organic artillery underwent changes in its organizational structure, as did the artillery of the Supreme High Command Reserve. Antitank and rocket artillery began to develop rapidly. The number of guns and mortars in Ground Forces units and formations increased considerably, as did their fire-control equipment and instrumentation.

Armored and mechanized troops continued to improve. To increase the firepower, striking power, and mobility of the Ground Forces, substantial changes were made to the structure of armored and mechanized troops. For example, a new operational field force, the mechanized army, was created from the tank army. With a better organization than the combined arms army, with considerably more tanks and self-propelled guns of the latest design, and with powerful artillery and air defense guns, the mechanized army was a highly maneuverable and extremely effective means of exploiting an operational success and, under favorable conditions, of converting an operational success into a strategic one.

Soon after the war, tank and mechanized corps were reorganized as tank and mechanized divisions. In accordance with the new organizational structure, these divisions had more tanks and artillery than the wartime tank and mechanized corps.

The rearming of air defense artillery formations with new automatic and semiautomatic weapon systems entailed improvements in their organizational structure. This was reflected primarily in the greater number of air defense facilities authorized for units and formations. At the same time, the number of air defense units in combined arms formations and field forces increased considerably after the Great Patriotic War.

All this made it possible to combat enemy aircraft more effectively and contributed to increasing the role and importance of organic air defense.

Improvement of the equipment supplied to engineer, chemical, and other special troops promoted their further development. In particular, this was reflected in the better facilities and greater numerical strength of special troops in all organic formations. For example, the number of engineer companies in a rifle corps in 1953 was 50 percent greater than at the end of the last war.³⁰ For the chemical troops, nuclear defense units were strengthened in view of the real danger that a probable enemy would use nuclear weapons. Signal troops were supplied with new equipment, including radio-relay gear.

On the whole, the measures implemented permitted a sharp increase in the combat capability and maneuverability of the Ground Forces, which had better combat equipment at their disposal than during the Great Patriotic War.

The Air Force was strengthened organizationally. From 1946 through 1949, the commander in chief of the Air Force was Marshal of Aviation K. A. Vershinin, and from 1949, Marshal of Aviation P. F. Zhigarev.

Between the final stage of the war and 1953, the portion of the Armed Forces constituting the Air Force more than tripled. The Air Force was subdivided into Frontal Aviation and Long-Range Aviation. The latter received organizational independence in 1946. Formed at the same time was Assault Transport Aviation, which came under the airborne troops.* The organizational structure of aviation units did not undergo any significant changes in comparison with those at the end of the Great Patriotic War.³¹

Long-Range Aviation units had turboprop and other bombers capable of hitting objectives deep in a theater of operations. These aircraft could be used to deliver nuclear weapons to a target.

Reequipping the Air Force with jet aircraft required new organizational forms for retraining air crews.

In June 1946, the airborne troops were withdrawn from the administrative authority of the Air Force and subordinated directly to the minister of the Armed Forces. Guards independent airborne brigades and certain rifle divisions were united to form several airdropped and airlanded units and formations. The airborne formation was a combined arms operational-tactical formation.

*Later, Assault Transport Aviation became Transport Assault Aviation, and then Military Transport Aviation.

With the advent of new combat equipment and improvements in organizational structure, airborne formations received more automatic small arms, guns, mortars, self-propelled guns, motor vehicles, and so forth. This improved their striking power, firepower, mobility, and maneuverability. At the same time, airborne troops received new models of military transport aircraft and all types of equipment.

On the whole, the airborne troops became considerably stronger, and their combat capability improved. They acquired greater organizational independence.

The development of strategic bomber aviation, unmanned means of attack, and nuclear weapons in the armies of the imperialist states, primarily the U.S., sharply increased the role and importance of the National Air Defense Forces. After the war, the Western, Southwestern, Central, and Caucasian air defense fronts were reorganized as air defense districts.

In 1948, the National Air Defense Forces were transformed into an independent service of the Armed Forces. They became a powerful and reliable means of safeguarding troop groupings, political, administrative, and economic centers, and communication points against air attack.

During this same period the country's air defense was reorganized. The entire territory of the USSR was divided into a border zone and an internal territory. The defense of the border zone and of naval bases was made the responsibility of district and fleet commanders. Subordinate to them were organic air defense resources located in the border zone. The internal territory was defended by the National Air Defense Forces as an independent service of the Armed Forces.³²

Modernization of the National Air Defense Forces was of paramount importance for the country's defense. At the beginning of the fifties, when violations of USSR air borders became more frequent, the National Air Defense Forces successfully intercepted all attempts to penetrate Soviet airspace.

The aviation units and formations of the National Air Defense Forces were strengthened organizationally. They were equipped with supersonic interceptors.

Air defense artillery units were provided with guns of larger caliber, higher muzzle velocity, and a high rate of fire. The number of guns in a battery was increased. Integrated air defense artillery systems appeared. These consisted of guns, fire-control equipment, and gun-laying radar that acted synchronously.

Early-warning troops had circular search radar capable of indicating targets to the batteries of air defense artillery units. Certain units had radar-controlled searchlights and radar equipment with an operating range of several hundred kilometers for detecting enemy aircraft and directing aircraft. This radar could determine the coordinates of air targets with a high degree of accuracy and had an effective antijamming system.¹³

Soviet progress in the development of missiles, and experience in their use, permitted the National Air Defense Forces to be supplied with missile technology in 1952, at which time the first units were formed to service missile facilities.¹⁴

The experience of the Second World War confirmed the great importance of naval forces not only in the maintenance of sea communications but also in combined operations with the Ground Forces in maritime sectors. The Soviet Navy increasingly commanded the attention of imperialist nuclear strategists in the postwar years.

When naval construction policy was being formulated during the first postwar years, it was necessary to reckon with the fact that industrial limitations prevented any radical departure from conventional naval materiel. Naval construction was therefore confined to building squadrons of surface ships. The Navy was a defensive factor in the operational-strategic plan. As formerly, it remained a coastal force, capable of conducting operations only to attain the goals of large front operations.¹⁵

Achievement of the goals of the 4th Five-Year Plan opened up the prospect of making the Soviet Navy stronger than it had been before the war. The total tonnage of warships built and transferred to the Navy in 1952 considerably exceeded the corresponding figure for 1940. In 1953, more than 30 percent of all the Soviet Navy's warships were of postwar construction.

There was no significant change in the branch structure of the Soviet Navy during this period. However, there was a distinctly perceptible tendency toward an increase in the relative strength of the submarine service, which was particularly well suited to conducting combat actions in remote seas far from home ports.

With the return to peacetime conditions, certain independent naval formations were no longer required. The White Sea Flotilla and the Danube and Dnepr river flotillas were disbanded. Certain coastal defense areas and temporary naval bases, some of which were on foreign soil, became unnecessary. When the mines laid by the fascists had been cleared, the need for coast guard units diminished considerably.

Before February 1946, the Soviet Navy was directed by the appropriate people's commissariat, and from February 1950 through March 1953, by the Naval Ministry. The position of commander in chief, or, during the appropriate period, of minister, was filled by Admiral N. G. Kuznetsov (1945-47 and 1951-55) and by Admiral I. S. Yumashev (1947-51).

The Rear Services of the Soviet Armed Forces were modernized. When they were restructured, attention was paid to reequipping and reorganizing the troops. The Rear Services were headed by General A. V. Khrulev until 1951, and then by General V. I. Vinogradov.

With the end of the war, significant changes took place in the functions and organization of the Border Troops and Internal Troops. The need to guard the rear of the army in the field lapsed. Accordingly, the Main Directorate for People's Commissariat for Internal Affairs troops guarding the rear of the army in the field was disbanded.

The numerical strength of the Internal Troops was reduced considerably. The use of such troops to guard railroads and key industrial enterprises was discontinued.

As a result of the defeat of Hitlerite Germany, the state border of the USSR changed considerably. Entire units that had been guarding the rear of the army in the field were assigned to the new border sectors.

Thus, a large-scale reorganization of the Armed Forces took place during the first postwar years. It was caused by the reduction of the Armed Forces, their shift to a more modern technological footing, and the need to raise troop vigilance and combat readiness.

4. Cadre Training. Restructuring Party-Political Work

The experience of the Great Patriotic War enriched Soviet military science considerably. The study and creative development of its tenets became one of the most important tasks for military personnel. Consequently, greater demands were made of military educational institutions and of the personnel training system as a whole.

The training and indoctrination of troops during the postwar years took into account accumulated war experience and the combat employment of the various services and branches of the Armed Forces. Creative interpretation and mastery of this experience made officers better military theorists and improved the quality of their leadership. The generalized experience of the war, with allowance for the development of armament, troop organization, and training methods, underlay further improvement in the theory of military affairs and, in particular, the development of

opinions and practical recommendations on conducting military operations under new conditions.

Further development of the theoretical and methodological principles of Soviet military science was of great importance for the art of war. At the beginning of the fifties, there were discussions on the content and purpose of military science, as well as on its individual fields and disciplines. Participants included Ministry of Defense personnel, faculty members of military educational institutions, and generals and other officers. The course of the discussions and their results were widely publicized in the military press.

In military strategy, the main emphasis was placed on developing the theory of strategic offensive operations and on organizing strategic defense with the participation of all services of the Armed Forces. Command personnel concentrated on the study of the art of war enriched by war experience. The principle of unified political and military command was refined.

Considerable progress was made in tactics and operational art at this time. More effective methods were developed for conducting combined arms operations with the joint efforts of all branches in various situations. Front and army operations were carefully substantiated and tested in practice. Progress was made in the theory of the deep offensive operation, in which there were considerably greater roles for armored and airborne troops, aviation, and air defense forces. More attention was devoted to joint operations by the Soviet Navy and Ground Forces in maritime sectors.

Troop training and indoctrination pursued the aims of elucidating, verifying, and consolidating in practice the advantages of the postwar structure of units and formations, their most rational battle formation, the sequence for committing men and equipment to combat, and precise methods of command and control. Combined operations by formations and units of the new organization were worked out during combat training.

Common views took shape on the nature and special features of a possible war and the aggressors' methods of unleashing it. The fact that the armies of the United States and Britain had weapons of mass destruction, together with the increasing aggressiveness of imperialism, required a new approach to mobilization and combat readiness. On instructions from the Communist Party and the Soviet government, steps were taken to ensure the combat readiness of the troops and to organize and carry out combat alerts.

The entire personnel training system was reorganized in accordance with peacetime requirements. This was accomplished on the basis of the

VKP(b) Central Committee resolution "On Training and Retraining Leading Party and Soviet Workers," which was adopted on 2 August 1946. In the Soviet Armed Forces a transition was made from accelerated personnel training to planned, precisely organized training. The normal 2-year course of instruction was reintroduced in military schools, and this was later increased to 3 years. Students in the schools were mainly enlisted men who had passed through the school of war. Special emphasis was placed on comprehensive utilization of the wealth of combat experience accumulated during the Great Patriotic War and World War II, taking into account new trends arising from improvements in military equipment and armament.

The issue of certificates of graduation from military educational institutions, resumed in 1947 for the first time since the war, was of great significance. More than 83 percent of the generals and officers who held at least the post of division commander had fought in the Great Patriotic War; 86 percent of combined arms army commanders and 71.5 percent of rifle-division commanders had higher military education; and 88.5 percent of rifle-regiment commanders had graduated from a military school or had completed advanced training courses.¹⁶

Along with this, the frequent turnover and rapid rise in the numerical strength of personnel during the war years resulted in a considerable proportion of officers lacking general education and formal military training. In the Ground Forces, as many as 30 percent of division chiefs of staff lacked higher military education. In the Air Force, more than 22 percent of officers lacked special military education. To eliminate this deficiency, a number of new higher and secondary military educational institutions were opened, and conversion training of Army and Navy specialists in the new technology was organized. For example, in 1946 the Higher Military Air Defense School was reorganized as the Military Academy for Artillery Radar. A few years later, the Command Signal Academy and the Command Artillery Academy were founded. In 1947, the V. I. Lenin Military-Political Academy resumed its normal function, and the Military Institute for Physical Training and Sports was established.

Remarkable cadres of commanders, political workers, engineers, and technical officers, all with immense combat experience, passed through the higher military educational institutions during the first postwar years. During this period, the enrollment at the Red Banner Air Force Academy alone included almost 480 Heroes of the Soviet Union and 28 two-time Heroes of the Soviet Union.¹⁷

Among the numerous higher and secondary military schools, those with an engineering or technical emphasis predominated. The National Air Defense Forces got two antiaircraft artillery schools and a radar school in 1949 and two higher engineering electronics schools in 1953.¹⁸

The number of students in the academies and schools increased, and the training changed. The entire educational and training process was improved in order to produce technically educated and politically mature officers.

During the postwar years, the military training establishments gave the Army and Navy many thousands of highly qualified specialists in military affairs. By 1953, the number of engineers and technical specialists in the Armed Forces exceeded the prewar figures by factors of 3 and 1.5 respectively.

The first-class armament of the Army and Navy was in good hands. About 90 percent of the officers, counting company commanders and above, had participated in the last war. Members of the party and Young Communist League constituted 86.4 percent of the Armed Forces. A considerable number of generals and other officers had received a second higher education during the first postwar years. About 60 percent of the reserve officers had passed through the school of the Great Patriotic War.

By a decision of the Communist Party and the Soviet government, improvements were made to the training system for cadres of war historians, and conditions for fruitful research in this field were created. A department of military history was opened in the M. V. Frunze Military Academy in 1946, and in the General Staff Academy in 1949, to prepare historians for positions in research organizations, establishments, and military educational institutions.

During the postwar years, a large number of theoretical and historical treatises, bulletins, and other works were published to improve the quality of combat training and political education of the troops. These publications, based on factual data, illuminated the most important operations and most instructive examples of combat actions during the last war, as well as ways of using the various services and branches, formations and units; they answered questions on party-political work; and they drew conclusions and made recommendations on the conduct of military operations under contemporary conditions.

The theoretical and practical seasoning of the officer cadres of the Soviet Armed Forces was not bounded by the walls of the academies and schools. A number of exercises and maneuvers were performed by the troops as early as the first postwar years. During the same period, command-and-staff training exercises were conducted in the field and on maps by the commands and staffs of military districts and of units and formations from various services of the Armed Forces. For example, large-scale combined arms exercises were conducted in the Belorussian Military District in 1952 and in the Transcarpathian Military District in 1953." The armies of the people's democracies began to participate in Soviet troop exercises.

The exercises were pursued to obtain deeper insight into war experience and the application of such experience; to derive new theoretical principles and shared opinions on the changing nature of warfare and methods of conducting operations; and to verify the new structure and combat capability of the Armed Forces. Personnel consolidated their knowledge and skills, and mastered the art of conducting combat actions in complex land, sea, and air situations. As a rule, the exercises constituted the culminating phase of a particular period of instruction and were a reliable means of monitoring the training of the troops, officers, staffs, and political elements.

The fundamental principle of troop training remained unchanged: to teach the troops what must be done in war. Guided by this principle, commanders conducting exercises created situations similar to those of actual combat, and they resolutely eliminated convention and indulgence.

As a rule, tactical exercises were two-sided, or a strong, active enemy was postulated. Such exercises were diverse in content, encompassing the main types of troop combat activity: for example, an offensive in a complex situation, with penetration of a deeply echeloned "enemy" defense, fighting in the depth, the repulse of massed tanks, infantry, and so forth. Much attention was devoted to solving problems of coordinated action.

The goal of party-political work under peacetime conditions was to motivate personnel to master new weapons and equipment, to strengthen discipline, and to establish the accepted principle of unity of command. The attention of political elements and party organizations was centered on raising the combat readiness of the Soviet Armed Forces and strengthening the ties between the Army and the people. Soviet servicemen responded spiritedly to all the patriotic undertakings of the workers and actively participated in the sociopolitical life of the nation.

During the war, servicemen who had distinguished themselves in action enjoyed special conditions for admission to the party. With the end of the war, the need to retain these conditions lapsed. In a resolution dated 8 December 1945, the VKP(b) Central Committee decreed that servicemen would be subject to the general conditions for admission laid down in the party rules. This brought to the forefront the question of ideological and political indoctrination of young communists in the Army and Navy.

The resolution "On the Growth of the Party and Measures to Intensify Party-Organizational and Party-Political Work With New Members of the VKP(b)," adopted by the VKP(b) Central Committee in July 1946, had a decisive influence on the reorganization of party-political work under peacetime conditions. The resolution called for strict observance of the principles and norms of party life outlined in the party rules, and further called for the utmost development of intraparty democracy, intensified

ideological and political indoctrination of party members, and an upsurge in the members' creative activity and initiative.⁴⁰

Implementing the planned measures, in August 1946 the party's Central Committee issued a resolution abolishing the institution of party organizers appointed by political organs and reinstating the institution of elected secretaries of company, battalion, and regimental party organizations. At the same time, the decision was made to hold report-and-election meetings in all company, primary, and regimental party organizations at the end of the year (that is, for the first time throughout the Armed Forces since the end of the Great Patriotic War). A year later, appointment by election was reintroduced for membership in the party committees under the political directorates of military districts and fleets, and in those under the political sections of armies, divisions, and flotillas.

In March 1947, the Council of Ministers enacted a new statute on political organs in the Armed Forces. The common goals, tasks, functional responsibilities, and organizational structure defined by the statute for these political organs ensured efficient, flexible, and purposeful direction of party-political work in a climate of peaceful progress. The statute emphasized the growing importance of the political organs as the VKP(b)'s guiding elements in the Armed Forces.

In January 1950, the Politburo of the party's Central Committee adopted a resolution to introduce the institution of deputy political officer in companies, batteries, squadrons, warships of the 3rd rank, detachments of warships of the 4th rank, and corresponding units. This same resolution allowed the Main Political Directorate to replace the primary party organizations in rifle battalions and artillery battalions that were components of regiments with primary party organizations of the regimental type.

Restoration of the institution of unit deputy political officer and the change in the structure of party organizations were caused by a significant reduction in the number of party members in rifle companies and equivalent units. By the end of 1948, more than two-fifths of all rifle companies and a quarter of all artillery batteries lacked party organizations. The creation of primary party organizations in regiments gave party members more opportunity to participate in the indoctrination of other personnel and permitted them to deploy their forces more advantageously. However, great difficulties were encountered in staffing units at the company level with political workers due to the shortage of qualified individuals. In approximately half of all cases, political worker positions in companies and equivalent units had to be filled by former platoon leaders and by senior enlisted career personnel. The situation was aggravated by the fact that six of the nine military-political schools were closed at the beginning of the fifties.⁴¹

After the war, planned political training was reinstated. Its goals, tasks, organizational forms, and subject matter were defined, in accordance with the instructions of the VKP(b) Central Committee, in a directive issued by the Main Political Directorate to the troops in December 1946. All enlisted men were required to attend regular two-hour political classes held twice a week and conducted according to a standard curriculum. Instruction in Marxism-Leninism became mandatory for officers of all ranks.

By 1947 the political education system had acquired a well-balanced organizational structure. About 50 percent of the officers improved their political knowledge within the officer training system; 13 percent attended evening courses at Marxist-Leninist universities or at party schools; about 30 percent were engaged in political self-education; and 7 percent attended general education schools or took correspondence courses from higher military educational institutions. The system produced propaganda specialists by conducting a continuous series of theoretical seminars. All this raised the ideological and organizational level of the political education given to personnel, and it contributed to the efforts of commanders, political workers, and party organizations to inculcate high moral, political, and martial qualities in all officers and enlisted men.

By the end of 1948, the Soviet Armed Forces had a vast political education system: 2,640 political schools, 4,250 groups for the study of Lenin's biography, 6,200 groups for the study of the history of the Communist Party, 690 divisional schools for party activists, and 142 evening universities for the study of Marxism-Leninism. Altogether, more than 270,000 party members in the Army and Navy were under instruction in the party's education system.⁴² In 1951-52, 74 percent of unit commanders had graduated from evening universities for Marxism-Leninism.

At the end of 1946, 580 newspapers were published in the Soviet Armed Forces at the district, fleet, army, division, and other levels; this was as many as were published during the prewar years. The daily *Krasnaya zvezda* was improved in format and content, and its circulation continued to grow from year to year.

The number of officers' clubs and clubs for military units increased, as did the number of libraries and their collections. As early as 1948, there were more than 53.3 million books, magazines, and pamphlets in the libraries of the Soviet Armed Forces. On the average, regimental libraries had 3,000 to 5,000 volumes, and libraries of officers' clubs had 15,000 to 25,000 volumes. In the single year 1949, the number of books in all libraries increased by 10 million volumes.

The party organizations at the army and fleet level, whose spirit and activity rose unswervingly, had a huge influence on the standard of political and combat training of Soviet servicemen during the postwar

period. The new party rules, adopted by the 19th Congress of the Communist Party in October 1952, played an important role in further improving the forms and methods used by Army and Navy party organizations in their work. Ensuring that the demands of these rules were met, while deepening and developing intraparty democracy, became one of the main tasks of the party organizations in the Armed Forces.

An important event for the Armed Forces was the ratification by the Presidium of the USSR Supreme Soviet, on 10 June 1947, of the text of a new military oath and a new procedure for taking it. In accordance with this new procedure, draftees took the military oath upon completion of their initial training once they had mastered their basic duties and were familiar with the regulations on the colors of the unit, but not later than two months from the day of enrollment in their unit.

Titles for class specialists and outstanding performers in political and combat training were also established. In June 1947, the rules and regulations governing the award of badges to enlisted men in the Armed Forces of the USSR went into effect. The awards were made annually on the basis of performance in political and combat training.

The Field Service Regulations and the Field Manuals and Instructions for all services and branches of the Armed Forces were reworked in light of experience gained during the Great Patriotic War. An important role in the training and indoctrination of personnel was played by the new editions of the Disciplinary Regulations of the Armed Forces of the USSR (1946), the Internal Service Regulations of the Armed Forces of the USSR (1946), and the Drill Regulations of the Armed Forces of the USSR (1947).

An important function of the political organs and party and Young Communist League organizations was to explain the demands made by modern warfare to the troops, motivating them to master the new weapons and equipment and to use them skillfully in battle.

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Guided by Marxist-Leninist theory and party policy, during the first postwar years Soviet military thought correctly solved the fundamental problems of the organization of the Armed Forces and the development of the art of war. The solution to these problems depended upon a profound and comprehensive study of the experience gained during the Great Patriotic War and World War II.

Owing to the development of the socialist economy and to Soviet successes in science and technology, the equipment supplied to the Army and Navy improved considerably. The organizational structure of the Armed

Forces was refined, as were the methods and means for the political and combat training of personnel. The advent and development of nuclear missile weaponry, modern electronics, and other achievements of science and technology led, in the end, to a revolution in military affairs and to a qualitatively new stage in the organizational development of the Armed Forces.

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42. Yu. P. Petrov, *Stroitel'stvo politorganov, partiynykh i komsomol'skikh organizatsiy armii i flota (1918-1968)* [Organizational Development of the Political Organs and Party and Young Communist League Organizations of the Army and Navy (1918-68)], p. 397.

Chapter 12. The Organizational Development of the Armed Forces During the Revolution in Military Affairs

(1954-61)

1. The Scientific and Technological Revolution and Its Effect on Military Affairs. The Need for Radical Changes in the Armed Forces

At the beginning of the fifties mankind entered the period of a tremendous scientific and technological revolution developing in the world's great industrial powers. This revolution was a complex and multifaceted process characterized by rapid scientific progress, the transformation of science itself into a direct productive force, and the transition from mechanical production to integrated, automated production.

The scientific and technological revolution swept through all aspects of national life, including military affairs. The manner in which this revolution occurred in capitalist countries was in the highest degree nonuniform and contradictory, and it tended to strengthen the position of the bourgeoisie as a class. This was demonstrated primarily by the fact that imperialism, being aggressive, used scientific and technological progress primarily for military purposes.

In 1953, American military policymakers adopted the so-called "New Look" in military organizational development, giving top priority to developing its air forces, especially strategic aviation. Underlying this course was the concept of "Massive Retaliation," which 3 years later became the official military strategy of the member countries of the aggressive NATO bloc. Imperialism, without renouncing its ultimate goal of mounting a full-scale nuclear war against the USSR and the other socialist countries, strove to avert the final collapse of the colonial system. The doctrine of "Limited War" was born and began to be implemented.

In 1958, a strategic army corps and a continental strategic reserve were created, and these could be transported rapidly to any area of the globe. The centralized control system of the U.S. Armed Forces was strengthened.

In 1961 the U.S. had 1,654 medium and heavy bombers, which represented 94 percent of the country's delivery means for strategic nuclear weapons. The B-52 intercontinental jet bomber had come into service. By 1961 the U.S. had 28 intercontinental ballistic missiles and 5 nuclear submarines with 16 Polaris missiles each.¹

Concurrently with the development of weapons of mass destruction and means of delivering them—primarily strategic aviation, carrier strike formations, and ballistic missiles—the U.S. continued to improve conventional weapons.

Structural changes took place in the armies of the NATO countries. Britain and France became capable of producing their own nuclear weapons in 1954 and 1960.

American aircraft began to make reconnaissance flights over countries the U.S. regarded as possible targets for nuclear attack. From 1953 through 1956, USAF aircraft violated the borders of the USSR 130 times and the airspace of the other socialist countries 211 times.²

In the mid-fifties the imperialist military clique, directed by American monopolistic circles, started a new round in the Cold War. The process of creating a system of regional military blocs on behalf of imperialism continued. The year 1954 saw the emergence of an aggressive grouping called SEATO, NATO's counterpart in Southeast Asia. The following year saw the signing of the Baghdad Pact, which, in 1959, was reorganized as the SENTO bloc.

With the support of the United States and Britain, West German revanchism revived and raised its head. In 1955 the Federal Republic of Germany was admitted to NATO. With the help of the U.S., Japanese militarism survived and gained strength. The ruling cliques of Western countries installed and supported reactionary regimes in a number of countries in Asia, Africa, and Latin America.

The Soviet Union could not ignore these aggressive aspirations and acts of imperialism. Successful completion of the 5th Five-Year Plan testified that the country had taken a great step forward on the road of scientific and technological progress, causing the achievements in science and technology to multiply the wealth of society and to raise the material well-being of the people. However, faced with the threat of war posed by imperialism, the Soviet nation was obliged to use the great scientific discoveries and technological achievements for military as well as peaceful purposes, employing them for radical changes to the Armed Forces.

Against the background of an aggravated international situation and the arms race in imperialist countries, an important role in the formulation

of Communist Party policy on science and technology was played by the July 1955 plenary session of the CPSU Central Committee. This session worked out a program for further acceleration of technological progress in industry, calling for the adoption of new production techniques to raise labor productivity.

Formulating the directives for the 6th Five-Year Plan, the 20th CPSU Congress in February 1956 indicated the need "to increase Soviet productivity substantially and to raise the national economy to a higher technological level. . . ."

Set forth in the plan were major political, economic, and social tasks, whose completion was also of great importance for the organizational development of the Soviet Armed Forces. The congress emphasized the decisive role of technological progress in raising the country's industrial productivity and defensive capability. Top priority was assigned to the development of heavy industry, which represented the material base for a further upsurge in the national economy and for defense production. Also set forth in the plan was a crucial economic task: to create within the next 10 to 15 years a very large base in the eastern part of the country to produce coal and electric power, together with a third massive metallurgical facility capable of producing 15 to 20 million tons of iron each year, as well as new machine-building centers. This task, in its entirety, was of great significance for defense production.

The economically most advantageous method of organizing public production—specialization, concentration, and cooperation—began to be widely adopted. The output of standard parts and assemblies by specialized enterprises increased, and cooperation between enterprises within the boundaries of economic regions and large industrial centers progressed rapidly. In agriculture, emphasis was placed on specialization, and consideration was taken of the natural and economic conditions in the various republics, territories, regions, districts, and farms. The problem of opening up fallow and virgin lands was solved.

The 20th CPSU Congress, taking into account the change in the correlation of forces on the international arena in favor of socialism, peace, and democracy, substantiated the important theoretical proposition that it was possible to avert another world war. A resolution based on a Central Committee report noted the following needs: "To watch vigilantly the intrigues of those who do not have an interest in easing international tension, and to expose in good time the subversive activities of the enemies of peace. To take the steps necessary to ensure the further strengthening of the defensive might of our socialist state, maintaining our defense at the level of modern military science and technology, thus safeguarding our Motherland."

The strengthened position of socialism, together with the scientific and technological revolution, gave long-term planning a special role. The main tasks and trends of a 15-year plan for the national economy were defined at a session of the USSR Supreme Soviet dedicated to the fortieth anniversary of the Great October Socialist Revolution (November 1957). It was proposed that the main sectors of industry would grow by a factor of two or three during the period covered by the plan. Incidentally, this led to a considerable increase in the defensive strength of the USSR.

The basic victories won by the party and nation during the entire period after the Great October Revolution were summed up at the 21st CPSU Congress, which was convened early in 1959. In a resolution, the congress noted that the Soviet nation, under the leadership of the Communist Party, had made great achievements in all areas of economic and sociopolitical life, ensuring the progress of the Soviet state on the road to communism. The congress drew the important conclusion that socialism had won a complete and final victory in the USSR. The figures in table 8 testify to the growth of the Soviet economy during the 6th Five-Year Plan.

Table 8. Output of Key Industrial Commodities in the USSR.^a

Commodity	1955	1960
Electric power, billion kwh	170.2	292.3
Coal, million tons	389.9	509.6
Oil, million tons	70.8	148.0
Iron, million tons	33.3	46.8
Steel, million tons	45.3	65.3
Rolled metal, million tons	35.3	51.0
Gas, billion m ³	9.0	45.3

Great changes took place in the Soviet political system. The socialist state, born as a dictatorship of the proletariat, turned into a national state, expressing the interests and will of the entire nation. A new historic community of people was formed—the Soviet nation. Accordingly, the Armed Forces of the USSR became the weapon of a national state, the trustworthy protector of all the classes and levels of Soviet society. The social and class base of the Armed Forces widened. The unity of Army and nation was further strengthened.

The 22nd CPSU Congress, convened in October 1961, considered and ratified a new party program. This program summarized the results of the Leninist program adopted by the 8th Party Congress in 1919, and majestic prospects were outlined for building communism. Defining the content of

revolution associated with the harnessing of nuclear energy, the advent of space travel, the development of chemistry, the automation of production, and other great achievements of science and technology.”⁶ The party also proceeded from the position that the contemporary scientific and technological revolution would exert a huge influence on the social and historical processes.

The Soviet Union actively pursued the peaceful use of atomic energy. In 1954, the world's first atomic power plant generated electric current in the USSR. During 1956-59, the nuclear icebreaker *Lenin* was built. The leading position of the Soviet Union in the conquest of space for peaceful purposes was indisputable. For the first time in the history of mankind, an artificial earth satellite was put into orbit on 4 October 1957. This historic event marked the beginning of the space age. A Soviet space rocket became the first artificial sun satellite on 2 January 1959. In the fall of that year, a second rocket reached the moon's surface, carrying a pennant bearing the state emblem of the Soviet Union.

The manned spaceship *Vostok* was launched successfully from the Baykonur space complex on 12 April 1961. A Soviet citizen and communist, Yu. A. Gagarin, became the world's first astronaut. This flight was an epochal event in the history of mankind.

The successes achieved in rocket design and construction testified to the close attention paid to the development of missile and space technology by the CPSU Central Committee. For several years, these questions were studied by Central Committee Secretary L. I. Brezhnev.⁷ Owing to the party's leadership, solutions were found to a number of complex scientific and technological problems: powerful, advanced rocket engines and space vehicles were built; automatic control systems for rockets in flight were designed; launch and ground control complexes were constructed; and a flotilla of research vessels was created and served as floating control and telemetry stations, capable of tracking and assuming control of orbital stations and spaceships in flight.

The successful outcome of the development work in space rocketry was due to the selfless toil of research, design, and production organizations headed by the eminent Soviet scientists M. V. Keldysh, V. P. Glushko, N. A. Pilyugin, M. K. Yangel', A. M. Isayev, G. N. Babakin, and others.

Speaking on 4 February 1959 at the 21st CPSU Congress, USSR Council of Ministers Deputy Chairman D. F. Ustinov said that to create a modern rocket industry it was necessary to solve a number of difficult problems in the design, technology, and organization of the production of new materials, complex, high-precision computers, and diverse ground equipment. A major problem was the construction of powerful rocket engines, special fuels, and heat-resistant materials. Entirely new

technological processes had to be developed and mastered in order to produce them.

While concentrating the main effort on peaceful uses of the achievements of scientific and technological progress, the Communist Party and the Soviet government paid serious attention to improving the nation's defense. "... Our party," said D. F. Ustinov, "is unswervingly pursuing a policy directed toward the rapid and comprehensive development of all our industries, and of metallurgy, machine construction, instrument manufacture, electronics, and chemistry in particular. Owing to this, the Soviet Union now has missiles of all classes and types in series production, as well as other defense materiel meeting present-day standards. . . ."

All countries were to some degree caught up in scientific and technological progress. This led to substantial changes in the material means of waging war, changes which acquired the form of a revolution in military materiel. This revolution was heralded by the advent and rapid development of nuclear missile technology and by improvements in conventional weapons. In the Soviet Union this process proceeded systematically and was directed by the Communist Party. The main goals of the party's military materiel policy were preferential development of those progressive trends in military technology best able to satisfy defense needs; close liaison between science and industry to create the most effective types of armament; rational improvement of weapons and combat equipment to meet the demands of modern warfare; a transition to integrated automation of the most important processes for operating military equipment; and development of new methods of command and control and new weapon systems.

The revolution in military materiel did more than accelerate the process whereby armament is modified or replaced by new models with qualitatively new combat characteristics; it also demanded closer correlation between military materiel policy and the general level of scientific and technological development, the state of the national economy, and so forth.

The fact that the USSR had a unified military materiel policy during the scientific and technological revolution was of immense importance for the successful solution of organizational development problems in the Soviet Armed Forces. The military began arming with nuclear missiles on a large scale, and the stage was set for the advent of new services and branches.

Arming the Army and Navy with nuclear missiles became the most important and essential element and index of the developing revolution in military affairs. The ability and readiness of the Soviet Armed Forces to repel imperialist aggression rose immeasurably during this period.

The revolution in military affairs engendered a host of radical changes in armament, military equipment, organizational structure, theory of the art of war, officer training, and troop training and indoctrination. This was an objectively natural phenomenon and was caused by the rapid progress of science and technology in economically developed countries.

The circumstances attending the birth and development of this revolution, as well as its tempo, scope, and consequences, depended to a decisive degree on sociopolitical factors: the nature of the social structure, the prevailing ideology, and government policy. In the Soviet Union, this revolution was accomplished under the guidance of the Communist Party in accordance with the fundamental natural laws governing the development of nature and society, and with all available knowledge on armies and warfare.

The essence of the revolution in military affairs consisted in the abrupt transition to nuclear missile weaponry and to the corresponding new ways of attaining the strategic goals of a war. Combining a nuclear warhead with a missile and automating their guidance led to the creation of an essentially new armament system—the nuclear missile, in which the huge destructive power of the nuclear warhead was combined with the relative invulnerability of the ballistic missile. This weapon changed former notions on preparing for and waging war, on the role and importance of time, space, and theaters of war, and on the correlation of the services and branches, the nature of their coordinated action, and troop readiness requirements.

The scientific and technological revolution, together with the closely associated revolution in military affairs, posed a multitude of pressing problems in the organizational development of the Armed Forces. The main problem centered on the rapid and substantive rearming of the Soviet Army and Navy with nuclear missiles. It was also necessary to modify conventional weapons and improve their combat characteristics, to consider the changes in the relationship between man and military equipment and in the nature of the serviceman's vocation, and to formulate new requirements for the political and combat training of personnel. There was also a need to review the methods of conducting military operations, including the organization of the troops and their employment in combat, and to draft new regulations and instructions. Military science had to make a profound study of the influence of the materiel factor on the nature of modern warfare, and to make practical recommendations on various questions of military theory and practice.

Despite the efforts made by the USSR, the other socialist countries, and the peace-loving states to ease international tension, aggressive circles in the imperialist states brought the world to the brink of a new war more than once during these years. In this situation, the Communist Party and

the Soviet government recognized the need to increase the strength of the Armed Forces, which reached 5,763,000 men by 1955, and to accelerate the equipping of the Armed Forces with new weapons.⁹ Concurrently, the USSR, in negotiations with Western countries, secured the adoption of effective measures for reducing the numerical strength of the standing armies and for stopping the arms race, following this up with concrete actions.

The Communist Party and the Soviet government considered the accomplishment of total and universal disarmament to be the most effective way to stop the arms race and secure universal peace. After the USSR and the U.S. had tested and deployed hydrogen bombs and intercontinental missiles, the problem of disarmament acquired immense importance and became one of the burning questions of our time. Taking into consideration the unwillingness of the Western powers to go to complete disarmament, the Soviet Union came forward as the initiator of a stage-by-stage solution of the disarmament problem, proposing reduction of armed forces concomitantly with prohibition of atomic and hydrogen bomb testing. However, this initiative was not supported by the imperialist powers.

In 1955, the Soviet state voluntarily relinquished its only naval base on foreign territory: Porkkala-Udd, Finland. Soviet military units were withdrawn from Port Arthur, and also from Austria.

Striving to guarantee the security of the socialist countries, to preserve peace in Europe, and to avert the beginning of another world war, the socialist states created their own defensive alliance in answer to the formation of the aggressive NATO bloc. A pact was concluded in Warsaw on 14 May 1955 providing for friendship, cooperation, and mutual assistance between the socialist states. If any signatory state came under attack, the other Warsaw Pact states were obliged to render prompt and comprehensive aid. Unlike the military blocs of the imperialist powers, the Warsaw Pact was open to other states, regardless of their social structure.

To carry out consultations between member states of the Warsaw Pact, and to permit consideration of questions that arose when the alliance was put into effect, the Political Consultative Committee was formed. The Warsaw Pact states created the Joint Armed Forces under the Joint High Command. The first commander in chief was Marshal I. S. Konev. In July 1960 he was replaced by Marshal A. A. Grechko.

In accordance with the Warsaw Pact and with the consent of the governments concerned, the decision was made to station Soviet troops temporarily on the territories of the German Democratic Republic, the Polish People's Republic, and the Hungarian People's Republic. There was also

a formal signing of agreements on the number of Soviet soldiers and the conditions of their stay on the territories of friendly countries.

With the advent of the Warsaw Pact, implementation of the principles for building an army of the new socialist type transcended the bounds of a single country and became a joint matter for the states of the socialist community. Benefiting from the rich experience of the Armed Forces of the USSR, the fraternal armies were developed and improved with constant aid and support from the Soviet Union.

The relations between the armed forces of the Warsaw Pact states reflected the nature and depth of the fundamental changes brought by the victorious socialist revolutions in these countries, particularly their common economic and sociopolitical organization and the leading role of Marxist-Leninist ideology. The principles of proletarian internationalism and the fraternal friendship between the socialist states and their peoples constituted the ideological and political base for the cameraderie between the socialist armies.

The ultimate basis upon which the armies of the Warsaw Pact states were built is Lenin's principle on direction of the Army by communist and workers' parties. Creating and indoctrinating the armed forces of the socialist countries, the parties depended upon Marxist-Leninist teaching on war and the army.

The unified military organization of the socialist countries produced highly favorable conditions for training the troops for the missions common to the armed forces of these countries, as well as for making a mutual exchange of experience in combat training and political and military indoctrination of personnel. There was considerably more opportunity to instruct key personnel in advanced military theory and practice, while taking into account the demands of the scientific and technological revolution and the rapid progress in military affairs.

The fact that the Soviet Armed Forces were equipped with the latest military equipment and weapons and possessed increased combat skills, together with the strengthening and growth of friendly relations with the fraternal armies, once again permitted a reduction in the total strength of the Soviet Army and Navy. From 1955 through 1958 the strength of the Soviet Armed Forces was reduced by 2,140,000 to a level of 3,623,000 men.¹⁰ In January 1960, a session of the USSR Supreme Soviet adopted a resolution on a further reduction in the strength of the Soviet Armed Forces. The law enacted at that session called for the reduction of the Armed Forces by 1,200,000 men and the disbanding or closing of the appropriate number of units, formations, and military educational institutions. State appropriations for military needs were reduced.

However, the imperialist states did not follow this example. On the contrary, they steadily built up their military strength. New NATO units were formed, while West Germany and Japan both got an army and a military command and control system. NATO began arming with tactical nuclear weapons, and their issue to the Bundeswehr was contemplated. Strategic aircraft and U.S. naval vessels made regular patrols with nuclear weapons on board. Reconnaissance flights by U.S. aircraft over Soviet territory became more frequent.

In view of this, the Communist Party and the Soviet government decided to halt the reduction of the Armed Forces temporarily, and to take other steps to strengthen the country's defensive capability. The defensive might of the Soviet Union was the best guarantee against the outbreak of another war.

2. Equipping the Troops With Nuclear Weapons. The Development of Conventional Weapons

By early 1954 the Soviet Armed Forces had nuclear weapons of various yields, including hydrogen bombs, and had experimental data on the destructive and casualty-producing effects of these new weapons and on methods of securing protection against them. Missile technology also developed rapidly. The new weapons were issued to the troops in large numbers.

The extensive arming of the Soviet Armed Forces with nuclear missiles was dictated by the vital need to strengthen the defensive capability of the USSR and the other socialist countries. This was an obligatory response prompted by the arms race in the imperialist countries and by the military threat they constantly posed.

While rearming the Soviet Armed Forces with new weapons was under way, development work on nuclear missiles and missile technology continued, as did the equipping of the troops with new types of conventional weapons and other military equipment. Experience in storing and launching nuclear missiles was acquired, and a doctrine was developed for their use in combat.

The variety of possible targets and the performance specifications of available delivery systems for nuclear warheads dictated that the warheads be of various yields: small, a few kilotons; medium, several dozen kilotons; and large, more than a hundred kilotons. A thermonuclear weapon of immense power was also produced.

The missiles issued to the forces were divided into four main classes: surface-to-surface, surface-to-air, air-to-air, and air-to-surface. Accord-

ing to the missile's design, fuel, and trajectory, the above classes were subdivided into single-stage and multistage, ballistic and cruise, liquid-fueled and solid-fueled, guided and unguided. According to a missile's designated military function and type of mission, it was classified as strategic (intercontinental, medium range), operational-tactical, or tactical. In addition, there were air defense, naval, and air-launched missiles.

The world's first intercontinental multistage ballistic missile was launched from Soviet soil in August 1957. A Soviet nuclear weapon and the mononuclear (hydrogen) weapon were also detonated at this time. A government statement on this event read: "The missile tests were successful. . . . The results obtained indicate the feasibility of launching missiles to any part of the globe. The advent of the intercontinental ballistic missile permits remote areas to be reached without resorting to strategic aviation, which at present is vulnerable to modern air defense means."¹¹ The statement also emphasized that the tests of the nuclear weapon and the thermonuclear weapon were no less successful than the missile tests.

Soon, intercontinental ballistic missiles began to appear as standard armament. They possessed huge range and great accuracy. In later years, Soviet designers developed several even more refined models of intercontinental ballistic missiles.

Further improvement of Soviet missiles made it possible to launch them from submarines. Formerly they had been launched from silo-type shelters.

The successes of socialist industry, the outstanding achievements of science and technology, and the intense and productive work of Soviet scientists, designers, and blue-collar workers permitted the Soviet Union to occupy a leading position in the development of missile technology.

Conventional computers and a variety of specialized computing devices found wide application in the Soviet Armed Forces, as did radar, communications, and reconnaissance equipment.

There was a sharp increase in the power per unit ratio of Army, Navy, and Air Force materiel. Submarines were fitted with nuclear power plants. The development of jet engines and internal combustion engines continued.

The operational-tactical missiles issued to the Ground Forces were intended to hit targets even many hundreds of kilometers away, while the tactical missiles were effective as far as several dozen kilometers from the launching site. These missiles, possessing a high degree of readiness and

mobility, became an important means of achieving success in operations and engagements.

The antitank guided missiles that appeared in the mid-fifties were an effective and mobile means of combating the enemy's armor.

The combat capabilities of conventional weapons improved considerably. These were, in effect, new weapons, significantly surpassing what the Soviet Armed Forces fought with during the Great Patriotic War.

Improved small arms issued to the troops included light and heavy anti-tank weapons, as well as submachine guns and machine guns of the M. T. Kalashnikov type. Improved artillery armament included howitzers, guns, and rocket launchers. The combat characteristics and mobility of artillery and mortars improved considerably.

The combat capabilities of tanks improved. The gyrostabilizers fitted to their guns increased the effectiveness of fire on the move. New vision devices permitted increasing the rate of movement of tank columns and made accurate fire possible at night. The maneuverability of tank units improved with the mastery of additional equipment allowing water obstacles to be negotiated by crossing along the bottom.

The armored personnel carriers of motorized rifle units were continually improved and were given more powerful armament. Shielded by strong armor, personnel could fight without leaving their vehicles.

There was a rise in the fighting strength and combat readiness of the Soviet Air Force. Fighter and bomber aircraft were equipped with missiles of various classes. Air-to-air missiles were a reliable means of combating enemy aircraft and other aerial targets. Air-to-surface missiles were intended for Air Force attacks on important enemy land and sea targets, and they constituted the main armament of our fighter-bombers and long-range bombers. Missile-armed aircraft acquired the capability of striking the enemy's strategic installations without entering his air defense zone. Missiles were an important means of fire support for the Ground Forces in their operations.

The Soviet Air Force became jet-powered, all-weather, missile-armed, and multirole. The fact that the aircraft, which possessed great speed, a high ceiling, and long range, were equipped with the latest innovations in automation, telemechanics, radar, and armament permitted pilots to perform their missions efficiently at any time of the day or night, and in any weather. During the latter half of the fifties, the Soviet Air Force had the MiG-17, MiG-19, and Yak-23 fighters, the Il-28 frontal bomber, and the Tu-16 long-range bomber. These aircraft formed the foundation of Soviet air power. The first Soviet supersonic interceptor, the MiG-19, which was

built in the early fifties, had a 55-degree swept wing and a speed of 1,450 km/h in horizontal flight. At the beginning of the sixties, new swept-wing aircraft were designed, including the Yak-25 two-seater all-weather fighter-interceptor, the MiG-21 supersonic fighter, the Yak-28 supersonic attack-interceptor, the Su-7b fighter-bomber, and variable geometry aircraft.

The helicopters developed by Soviet designers were widely used for air reconnaissance, communications, troop and cargo transport, fire support for ground forces, and antisubmarine warfare. There was also rapid development of military transport aircraft capable of rapidly transferring troops and equipment to distant points.

Air defense facilities underwent radical changes. The range, ceiling, and rate of fire of air defense artillery increased, and the effectiveness of air defense missiles improved. Personnel mastered the new armament at the air defense sites successfully.

The National Air Defense Forces received improved air defense missiles complete with radar equipment. This greatly increased their ability to combat the enemy's means of air attack, especially in poor weather conditions and at night.

Also issued to the National Air Defense Forces were fighter-interceptors capable of engaging high-speed air targets over a wide range of altitudes and at great distances. Improved electronics ensured timely detection of the enemy's means of air attack, thus creating favorable conditions for their destruction.

The advent of the nuclear power plant made Soviet submarines fully self-contained and permitted them unlimited range. Advances in surface ships included rapid development of antisubmarine and antimine weapons and improvements in navigational aids, radar, sonar, artillery fire control, and torpedo guidance.

In 1955, a ballistic missile was launched from a Soviet submarine for the first time. The role of the submarine was no longer confined to engaging the enemy's warships at sea, as a submarine armed with long-range missiles could destroy inland targets in remote regions.

Much work was done on the creation of a powerful, oceangoing fleet armed with nuclear missiles and consisting essentially of new vessels fitted with new weapon systems and equipment. Bold engineering and other design decisions overcame the difficulties presented by the Soviet Union's lack of overseas territories and bases. The position of the USSR as a great sea power was strengthened as never before.

Surface ships and submarines, naval aviation, marines, and coastal defense units were armed with missiles of various classes and types. There were missile-armed cruisers, patrol boats, and aircraft. Nuclear-powered missile submarines became the fleet's main striking force.

Means of communication and command and control were improved, as were engineering, technical, medical, and other types of support.

Outfitting the Soviet Army and Navy with new weapons and equipment increased their fighting strength and combat readiness. In the Central Committee report to the 22nd CPSU Congress in October 1961, it was noted that "*. . . the rearming of the Soviet Army with nuclear missiles has been completed in its entirety. Our Armed Forces now have at their disposal a weapon powerful enough to overwhelm any aggressor.*"¹²

The arming of Soviet forces with nuclear missiles, which constituted the foundation of their firepower and striking power, and the further development of conventional weapons was accompanied by changes in the organizational structure of the Soviet Armed Forces, changes made according to the demands of modern warfare.

3. Improving the Structure of the Armed Forces

The extensive introduction of nuclear missiles, along with radical changes in the nature of warfare and in the methods of waging armed conflict, demanded a new look at the development of the Soviet Army and Navy. It was necessary to define more precisely the role, place, and relative importance of each service and branch in the overall military organization of the Soviet state, and to seek the most advantageous balance and coordination between them.

Soviet military science's disclosure of the characteristics of nuclear warfare permitted, as noted above, enrichment of the content of military doctrine. This doctrine's new principles found concrete theoretical and practical interpretation primarily in the organizational structure of the Armed Forces. Being the doctrine of a peace-loving, socialist state, it proceeded from the configuration of forces on the international arena and the achievements of the scientific and technological revolution. On this basis it defined the most judicious and rational methods of combining within a single military organization the diverse elements of personnel and equipment, armament systems and crews, and control and support. An established principle of the doctrine centered on the missile as "the weapon best able to meet contemporary military requirements, permitting accomplishment of strategic, operational, and tactical missions on land, at sea, and in the air."¹³

In the fifties, to improve the effectiveness of centralized troop control, appropriate organizational changes were made in the Ministry of Defense, General Staff, main administrations, and central directorates. The overall direction of the organizational development of the Soviet Armed Forces in accordance with the Constitution of the USSR was vested in the USSR Council of Ministers, which directed the entire activity of the Ministry of Defense.

From February 1955 to October 1957, the Ministry of Defense was headed by Marshal G. K. Zhukov, and from October 1957, by Marshal R. Ya. Malinovskiy. Marshal V. D. Sokolovskiy was chief of the General Staff until April 1960, when he was replaced by Marshal M. V. Zakharov.

Nuclear missiles began to affect the organizational development of the Army and Navy in a tangible way. In January 1960, the USSR Supreme Soviet announced the creation of a new service: the Strategic Missile Forces. Chief Marshal of Artillery M. I. Nedelin was appointed commander in chief, and in 1960 he was replaced by Marshal K. S. Moskalenko.

The organizational development and strengthening of the Strategic Missile Forces proceeded under the direct control of the CPSU Central Committee, and with its active help. In June 1960, the Strategic Missile Forces Military Council was created by a resolution of the CPSU Central Committee and the USSR Council of Ministers. This virtually completed the organization of the leadership elements for the new service.

Concomitantly with the creation of the Strategic Missile Forces, the organizational restructuring of the other services and branches continued. This was a result of the growing complement of nuclear missiles, new, more powerful types of conventional weapons, and other new equipment.

As before, the Ground Forces remained the service with the greatest numerical strength. They were capable of accomplishing major missions to defeat the enemy in land theaters of operations, either in coordinated action with other services or independently. When the post of commander in chief of the Ground Forces was reinstated in March 1955, it was filled by Marshal I. S. Konev. Subsequent commanders were Marshal R. Ya. Malinovskiy and Marshal A. A. Grechko, and from 1960 on, this position was occupied by Marshal V. I. Chuykov.

The organizational structure of the Ground Forces developed in the direction of a sharp increase in firepower and striking power. They were armed with operational-tactical and tactical missiles of great range, accuracy, immense destructive power, and good maneuverability. There was an increase in the combat capabilities of artillery of all types and pur-

poses. Artillery was much improved, and was more powerful and maneuverable.

Operational-tactical and tactical missile forces were merged with artillery into a single branch capable of inflicting powerful and accurate blows on targets within a range of several hundred kilometers. Missile troops and artillery became the Ground Forces' main source of firepower. This was a new milestone in the reorganization of the Ground Forces.

Complete motorization and a full complement of armor led to substantial changes in the Ground Forces' numerically strongest branch, the rifle troops, which were renamed the motorized rifle troops. By 1957, the rifle division and the mechanized division had been replaced by the motorized rifle division, which united motorized rifle and tank units in a single organization. A motorized rifle division had more tanks than a mechanized corps in the Great Patriotic War. Personnel were armed predominantly with automatic small arms. Inclusion in the motorized rifle division of units equipped with antitank guided missiles, powerful artillery systems, and engineer equipment increased its combat capability considerably, especially in encounters with the enemy's tank groupings.

There was an increase in the combat capabilities of tank troops, the main striking force of the Ground Forces. After reorganization in 1957, the tank division had more tanks than a tank corps at the end of the Great Patriotic War. Because of their new organization, great striking power, mobility, and low vulnerability to nuclear weapons, tank troops were able to extensively exploit the results of nuclear weapons use and to inflict crushing blows on the enemy, developing an uninterrupted offensive at great speed and to great depth. Tank formations increased the combat capabilities of the Soviet Ground Forces in operations employing nuclear missiles.

Successes in the development of military transport aviation and improvements in paratroop equipment strengthened the logistical base of the airborne troops considerably. This made it possible to quickly move whole units and formations great distances and to airland or airdrop not only personnel but tanks, guns, prime movers, motor vehicles, engineer equipment, and ammunition. The missions that could be accomplished by airborne troops increased in scope and complexity. The fighting strength and organizational structure of the airborne troops permitted them to act successfully in the depth of the enemy's defense, to destroy his nuclear facilities and command and control elements, to seize and hold advantageous lines, crossing areas, and bridgeheads, and to disrupt his communications.

The effectiveness of the Ground Forces' defense against air attack was improved by the introduction of missile complexes and multiple automatic

artillery systems. Organic air defense units, in coordinated action with fighter aviation, became capable of destroying hostile air targets at low, medium, and high altitudes. Highly effective air defense fire was achieved by the use of radar and automated command and control systems. The mobility of air defense facilities permitted wide maneuver for protecting the Ground Force's groupings, command and control elements, and rear installations against air attack.

Substantial replacement of the equipment at the disposal of engineers improved their performance in building roads and bridges and in laying minefields and other obstacles. The use of improved crossing and assault equipment and pontoon bridges made it possible to move troops and all types of combat equipment across water obstacles rapidly. The use of new excavators and various collapsible structures permitted dependable shelters to be erected promptly for personnel and equipment.

The signal troops received greatly improved equipment. The range and noise immunity of various radio facilities increased. The reliability and transmission capacity of telephone and cable lines improved considerably. Multichannel radio-relay and telegraph sets received wide application, as did tropospheric and ultrashortwave communication systems.

All this brought changes in the organizational structure of the signal, engineer, and other special troops, and helped to increase their ability to support combat actions.

On the whole, the Ground Forces underwent significant changes. They contained new branches—missile troops and artillery—which included operational-tactical and tactical missile units and organic air defense troops.

Air defense missile troops and missile-armed fighter aviation formed the main firepower of the National Air Defense Forces. The air defense missile troops, a new branch of the National Air Defense Forces, were armed with missiles of various types for combating the enemy's means of air attack. Precise guidance of air defense missiles to the target was ensured by a complex system of diverse electronic equipment.

Great qualitative changes also took place in air defense fighter aviation, which was equipped with supersonic all-weather fighters and missile-armed fighter-interceptors with a large radius of action.

The radar troops, who replaced the Aircraft Early Warning and Communications Service, were much better equipped. They had at their disposal electronic equipment with 24-hour, year-round capability of detecting an enemy air attack at long range, identifying the attack means,

and determining the precise location, thereby ensuring target indication to air defense missile troops and guidance of air defense fighter aviation.

As air attack and air defense means improved, the organizational structure of the National Air Defense Forces changed accordingly. New units and formations of the National Air Defense Forces, including various branches, were created at the beginning of the fifties.

The post of commander in chief of the National Air Defense Forces was established in May 1954. Its first incumbent was Marshal L. A. Govorov (1954-55), and he was succeeded by Marshal S. S. Biryuzov.

There was continuous improvement in the combat capabilities of the Soviet Air Force, which before 1957 was headed, successively, by Chief Marshals of Aviation P. F. Zhigarev and K. A. Vershinin. Organizationally, the Air Force consisted of Frontal, Long-Range, and Military Transport Aviation.

Frontal Aviation was subdivided into bomber, fighter-bomber, fighter, reconnaissance, and special aviation. Organizationally, it consisted of aviation units and formations, special troops, and rear services units and installations.

Missile-armed aircraft of all types and purposes could attack land, sea, and air targets without entering the field of fire of the enemy's air defense facilities.

Fighter aviation got units of supersonic aircraft capable of climbing rapidly into the stratosphere. Their radius of action also increased considerably. A reliable missile guidance system ensured that high-speed targets traveling at various altitudes could be hit at any time of the day or night, and under adverse weather conditions.

Ground-attack aircraft were replaced by fighter-bombers that combined the characteristics of the fighter with those of ground-attack aircraft. Armed with missiles, bombs, and machine guns, the fighter-bomber became a dependable means of engaging air and ground targets.

Equipping bombers with more modern navigation instruments and radar sights greatly increased the accuracy of bombing.

With first-class optical and electronic equipment, reconnaissance aviation was able, with a high degree of accuracy, to determine the coordinates of reconnoitered installations, rapidly process this information, and transmit it to interested command elements.

Long-Range Aviation included missile-armed bomber aviation, reconnaissance aviation, and special aviation. Organizationally, Long-Range Aviation consisted of aviation units, special troops, and rear services units and installations.

Soviet air power was based on Long-Range Aviation's jet and turbo-prop missile-armed aircraft and bombers, whose radius of action was considerably extended by in-flight refueling. These aircraft were capable of hitting the enemy's strategic installations with missiles and bombs armed with nuclear warheads.

Military Transport Aviation was divided into airborne transport aviation and special aviation. Organizationally, it consisted of aviation units, special troops, and rear services units and installations.

Military Transport Aviation was equipped with the latest fixed-wing and rotary-wing aircraft with large cargo capacity and the ability to airlift troops, combat equipment, ammunition, rations, fuels, and lubricants rapidly over great distances.

The Soviet Navy also underwent radical changes. Until 1955, its commander in chief was Admiral N. G. Kuznetsov. Since January 1956, this post has been filled by Admiral of the Fleet of the Soviet Union S. S. Gorshkov.

The Soviet Navy comprised the submarines and surface warships of the fleet, naval aviation, coastal missile and artillery troops and marines, auxiliary vessels, special purpose units, and rear units and installations. Organizationally, it consisted of fleets, flotillas, squadrons, formations, and naval bases.

As the revolution in military affairs developed, the submarine fleet and naval aviation, both of which had nuclear missiles, were modernized. Nuclear-powered missile submarines and naval aircraft armed with nuclear missiles became the main striking force of the Soviet Navy.

The new submarines had great range and endurance, considerable mobility and low vulnerability to detection, and were able to launch nuclear missiles on short notice, while submerged, against important operational-strategic targets. The fact that these nuclear-powered submarines carried strategic missiles and homing torpedoes with nuclear warheads, as well as electronic surveillance and detection equipment, made them an extremely important means of destroying the enemy's land-based and sea-based nuclear weapons, naval task forces, and coastal installations. Nor had diesel submarines lost their significance.

Naval aviation was equipped with missile-armed aircraft and antisubmarine aircraft and helicopters. All-weather, jet-powered, missile-armed aircraft were intended to mount devastating nuclear attacks on the enemy's highly mobile groupings of warships, aircraft carriers and convoys, ports and naval bases. Antisubmarine aircraft, equipped with radar and sonar, and armed with missiles and torpedoes, were quite able to cope with enemy submarines.

There was a considerable increase in the striking power and firepower of surface warships, notably that of missile cruisers and destroyers. There was also a substantial improvement in the combat capabilities of torpedo boats and missile patrol boats. For example, the salvo of a missile patrol boat surpassed that of a cruiser during the Great Patriotic War. Antisubmarine ships and minesweepers were improved.

Amphibious assault ships received powerful armament. Improved seagoing qualities permitted them to load troops and equipment directly from shore and to make landings close inshore.

The coastal missile and artillery troops, who replaced the coastal defense troops, consisted of coastal units armed with modern missile launchers and artillery. Jointly with other naval forces, these troops were capable of accomplishing coastal defense missions.

Marine units were equipped with the latest small arms, artillery, armor, and antinuclear and antichemical facilities.

Naval support units had an adequate number of floating bases, repair ships, tankers, rescue craft, hydrographic vessels, transports, tugs, icebreakers, and so forth.

The arming of our troops with nuclear weapons, and the increase in their mobility and maneuverability, demanded further improvement of the Rear Services of the Armed Forces. It was necessary that the Rear Services be more mobile, better equipped, and in line with the changes in conducting armed conflict. It was also necessary to seek the most rational methods for troop supply, medical support, provision of living facilities, and personnel services.

Rear support for the Armed Forces underwent substantial changes. In June 1958, to ensure centralized direction of the Rear Services, the post of chief of Rear Services, with deputy minister of defense status, was established. Its first incumbent was Marshal I. Kh. Bagramyan.

Aware of intensified subversive activity by agents of international imperialism, the Communist Party and the Soviet government took particular care to strengthen the Border Troops and Internal Troops.

In 1957, to better safeguard the USSR state boundary, the Border Troops were transferred from the jurisdiction of the Ministry of Internal Affairs to that of the Committee for State Security ['KGB'—U.S. Ed.] under the USSR Council of Ministers.

The Border Troops received better patrol vessels, helicopters, armored personnel carriers, motor vehicles, radar, small arms, and assorted special equipment. As a result, their ability to guard and defend the state boundary improved significantly.

The Border Troops were organized by military district, garrison, detachment, outpost, and patrol-vessel squadron. There were other units, establishments, and mobile groups. Unit organization became better suited to guarding and defending the border. An important step in the organizational development of the Border Troops was the ratification by the Presidium of the USSR Supreme Soviet, in August 1960, of a statute on guarding the USSR state boundary.

In the mid-fifties, the Internal Troops were a component of the Ministry of Internal Affairs. Also under its jurisdiction were local air defense forces, which did a great deal of work finding, disarming, and destroying unexploded aerial bombs, artillery shells, and mines remaining on Soviet soil. These forces also participated in the restoration of towns and factories devastated by the fascist German invaders and in the construction of hydroelectric power stations and other important projects. Toward the end of the fifties, the local air defense forces began a transfer into the newly re-formed civil defense system.

With the abolition of the Ministry of Internal Affairs in 1960, the main administration for Internal and Escort Troops was disbanded, and such troops were directly subordinated to the ministries of internal affairs of the union republics.

Thus, in seven or eight years radical changes took place in the organizational structure of the Soviet Armed Forces. Arming the services with nuclear weapons greatly increased their strength and readiness. Changes in the conduct of military operations called for a new look at combat and political training, with particular regard to the demands of modern warfare and to the troops' ability to perform should the enemy use weapons of mass destruction.

4. Changes in Cadre Training. Further Improvements in Party-Political Work

Adoption of the nuclear missile by the Soviet Armed Forces, together with the radical changes in their organization, provided a powerful

stimulus for the development of Soviet military science, and particularly its main area—the art of war. Turning to accumulated experience, answers were found to a wide range of questions on the effects of the new weapon on the nature of a future war, on the ways in which such a war would be fought, and on the methods used to train and indoctrinate the troops. Party-political work was further improved.

In training personnel, consideration was taken of the fact that as the revolution in military affairs progressed, the relation between the factors determining the achievement of success in war would become more complicated. Against this background, it was clear that military science would play an increasingly important role in the organizational development of the Soviet Armed Forces and in the strengthening of the defensive might of the USSR and the countries of the socialist fraternity.

At the bidding of the party's Central Committee and the Soviet government, steps were taken to organize the expansion of military theoretical and applied research work. An Armed Forces conference on military science was convened in May 1957. Important contributions to the theory and practice of the art of war were made by Army, Navy, and Air Force officers from the General Staff, the main and central administrations of the Ministry of Defense, the Main Political Directorate, the staffs of the services and branches, military academies, research organizations, and military scientific societies.

The nature and features of modern warfare were assessed from the positions of Marxist-Leninist methodology, as were the conditions and prospects for attaining the goals of a modern war. Agreement was reached on the principles to be followed in preparing the Armed Forces and the country as a whole to soundly repulse an aggressor. Special attention was paid to the initial period of such a war and to methods of conducting strategic offensive operations. Views on the nature and content of strategic defense changed. In operational art and tactics, emphasis was placed on preparing units and formations of all services and branches for participation in a variety of situations.

The high level of combat readiness and the high morale of the Soviet Army were especially evident at the time of the counterrevolutionary revolt in Hungary in October 1956. Soviet military units, which were in Hungary under the terms of the Warsaw Pact, at the request of the workers' and peasants' revolutionary government helped to restore order in the country and participated in the crushing defeat of the counterrevolutionary forces. The attempt by international reactionary forces to export counterrevolution to Hungary failed. The authors of a report for the Senate Foreign Relations Committee admitted later that the U.S. would probably not have hesitated to interfere in Hungary's affairs "if Soviet nuclear capability had still been at the 1953 level."¹⁴

It was held that a future war, should be imperialists manage to unleash one against the countries of the socialist fraternity, would be a decisive armed conflict between two diametrically opposed social systems, would be coalitional in character and worldwide in scope, and would be waged with nuclear missiles. Such a war would be characterized by highly dynamic and bitter combat and by the absence of continuous, stable front lines. At the same time, the possibility that the imperialists would wage local wars was not excluded.

Soviet military doctrine proceeded from the premise that the nuclear missile virtually dictated that a future war would be of short duration, but this doctrine did not rule out the possibility of a protracted war. In the latter event, a prolonged effort would have to be made by the Armed Forces and by the country as a whole, and large reserves would be needed.

While assigning a decisive role in modern warfare to the nuclear missile, Soviet military doctrine in no way belittled the importance of conventional weapons, recognizing that final victory could be won only by the joint efforts of all services and branches of the Armed Forces. The ever-growing importance of military equipment increased the role of the individual in war, thus creating higher standards for training officers and for training and indoctrinating all other personnel.

The adoption of nuclear weapon systems resulted in major changes in the training and refresher course programs and methods for military personnel at all levels—from the central military administration and command personnel down to field units. In accordance with a decision of the CPSU Central Committee and the USSR Council of Ministers, beginning in January 1954 the training program for Soviet servicemen included the study of nuclear weapons and methods for conducting combat actions employing such weapons. This was another aspect of the revolution in military affairs.

The threat of a new world war, and the possibility that the imperialists would use nuclear missiles, reopened questions on the mobilization and combat readiness of the Armed Forces. Lenin's instruction that "it is our duty to be prepared for war" acquired a special urgency.'

A high level of combat readiness was ensured by bringing formations, units, and ship crews up to authorized strength and by making up deficiencies in armament and combat equipment, as well as by stockpiling materiel. The level of training in the field, afloat, and in the air rose constantly. The moral-political and psychological training of servicemen reached a high level, while discipline and organization were strengthened. The command and control system was improved with the latest technology.

Certain services were put on alert duty. Personnel on alert duty were capable of performing their combat mission immediately. The National Air Defense Forces, for example, were held at constant readiness to protect the USSR's political-administrative and economic centers and the Soviet Armed Forces' most important groupings from enemy air attack. Maintaining a combat alert was tantamount to the performance of a combat mission in peacetime.

Against the background of the revolution in military affairs, personnel training and indoctrination had to be organized so that good moral-political, psychological, and physical qualities would be produced in each serviceman and group of servicemen. These qualities were necessary for the development of combat expertise, emotional stability, constant readiness to endure any hardship of war, and the ability to maintain, under the most adverse conditions, a high level of combat activity and an indomitable will to win.

A leading role in the formation of these qualities, and in the training and indoctrination process, belonged, as formerly, to commanders. The revolution in military affairs made new demands on their technical background, political knowledge, and pedagogical skill. The radical changes in military affairs caused significant shifts in the structure of the officer corps, notably an increase in the proportion of engineers and technical officers. At the end of the Great Patriotic War, for each authorized unit of engineers and technical officers, there were 5.7 authorized units of line officers in the Ground Forces and 4.2 such units in the Armed Forces as a whole. Toward the end of the fifties, the corresponding figures were 3 and 1.5 respectively.¹⁶ The introduction of modern types of armament and combat equipment called for a higher level of technical knowledge among officers of all categories. So that a commander could skillfully wage modern warfare, organize and conduct political and combat training, and operate and maintain combat equipment competently, he had to have a knowledge of engineering.

To this end, many secondary military schools and military technical schools were converted to higher military educational institutions. The creation of higher military schools and higher military technical schools was an entirely new development in the Soviet Armed Forces. Such disciplines as higher mathematics, physics, chemistry, and stress analysis appeared in the programs of higher military schools. Officers graduating from these schools possessed knowledge and qualifications corresponding to the graduate-engineer level, and graduates of higher military technical schools acquired engineer rather than technician status.

The RSFSR Supreme Soviet Moscow Military School was converted to a higher combined arms school for officers in June 1958 by decision of the party and government. It was one of the first schools in the country to be

so converted. The course of study lasted four years. The higher level of instruction given to the students made it necessary to provide a field area with various ranges, training complexes, and training grounds; the academic center contained classrooms, offices, and modern, well-equipped laboratories.¹⁷

There were substantial course changes at the military academies. As in the schools, greater emphasis was placed on the technical disciplines. Special attention was paid to the nuclear missile, to the means of delivering it, to its use in combat, and to antinuclear protection for personnel. Consideration was taken of the growing importance of advanced command and control and automated control systems.

Bearing full trust of party and nation, Soviet officers devoted all their knowledge, experience, and strength to successfully carrying out the military and political training of the troops entrusted to them, and to increasing the combat efficiency and readiness of the Soviet Armed Forces. Under their leadership, the men of units and formations, in the field or afloat, mastered new combat equipment and became adept in its utilization in diverse situations, with or without recourse to nuclear weapons.

More was demanded of enlisted men in both the Army and Navy. If they were to master new equipment successfully and use it skillfully, their expertise had to be at the technician's level. Accordingly, the programs and levels of training for noncommissioned specialists were reviewed. In July 1954, an order issued by the minister of defense of the USSR authorized badges to be awarded to qualified specialists of all enlisted ranks from all branches. This measure stimulated the quest for the titles of master specialist and qualified specialist.

Much attention was paid to the need for close teamwork between units of naval and ground forces. Such coordination was developed in battle drill exercises, specialist arms tactical exercises, general tactical exercises, field firing exercises, actual missile launchings, and troop and fleet exercises.

The first large-scale training exercise involving the detonation of an atomic device took place in the Soviet Union in September 1954. During exercises conducted in military districts and fleets, methods were developed for repulsing a surprise nuclear attack by an aggressor, as well as for dealing him a crushing retaliatory blow. Generals and other officers made a profound study of the September exercise and familiarized themselves with the engineer preparation for antinuclear protection of the unit combat positions.

The exercises took place in situations simulating combat situations as closely as possible. The troops were trained to conduct combat actions at

all hours, in any weather, and on diverse terrain. Commanders, staffs, and political organs verified in practice the forms and methods of combat activity most closely corresponding to the potentialities of the atomic weapon. As a result, personnel mastered the fundamentals of conducting combat actions that employed nuclear weapons and were characterized by dynamism and maneuver.

The troops acquired experience in the prompt and decisive exploitation of the results of nuclear strikes. They acquired the ability to perform speed marches, to fight offensive, defensive, and meeting engagements, to use new combat equipment with confidence, and to implement measures for protection against weapons of mass destruction. The exercises improved the quality of training among air, naval, and ground forces, raised the level of moral-political and psychological tempering of servicemen, and made them more disciplined and better organized.

A training exercise conducted in the Kiev Military District on the eve of the fortieth anniversary of the Great October Socialist Revolution demonstrated, for the first time in the history of the Soviet Armed Forces, an offensive involving a forced tank crossing over a riverbed. Among those present were party and government leaders, senior officials of the USSR Ministry of Defense, the General Staff, and the Main Political Directorate, and commanders of military districts. During the exercise, a high level of combat training was displayed by tankmen, motorized riflemen, and servicemen of other specialties. The experience gained during this exercise was widely publicized among the troops.¹⁴

An all-armed forces conference for outstanding servicemen, held in March 1957, played an important role in raising the level of combat and political training. The conference started widespread socialist competition in the Armed Forces. The ranks of servicemen receiving awards for excellence, as well as the numbers of qualified specialists and athletes with official ratings, increased, as did the number of Army units and Navy vessels rated as exemplary. Patriotic movements began that were aimed at lengthening the interval between major overhauls of combat equipment, conserving fuels and lubricants, and so forth. The Honor Book, in which the names of outstanding servicemen were inscribed, was introduced at the unit level.

The restructuring of the training and indoctrination of personnel made it necessary to amend military regulations. The new field manuals reflected the radical changes in technology and personnel structure, and took into account the tactics of possible enemies.

Also reviewed were the regulations governing the service life and private life of military personnel. The Drill Regulations for the Armed Forces of the USSR came into effect in January 1959. In August 1960, the Presidium

of the USSR Supreme Soviet ratified the Internal Service Regulations and Disciplinary Regulations for the Armed Forces of the USSR, thus reinstating the procedure followed in Lenin's lifetime whereby overall service regulations are ratified by the highest political body of the Soviet state.

Much work was done in connection with the training, retraining, and registration of reserve officers.

The massive introduction of new types of armament and combat equipment, together with changes in personnel organization, indoctrination, and training, required improvement of party-political work. Guided by the decisions made at the 20th and 21st CPSU Congresses, the party's Central Committee sought to strengthen the military's political organs and party organizations and to increase their role in solving problems raised by the revolution in military affairs.

Finishing the restructuring of party organizations begun in 1950, the Central Committee, in accordance with the party rules, sanctioned the creation of lower-level party organizations in battalions and companies in June 1954.

The February 1955 meeting of the Armed Forces leadership, convened with Central Committee representation, was crucial for determining the further development of the services and for improving party-political work while reequipping the troops with modern equipment. Aware of the need to ensure unity of political and military command, to raise the level of party work, and to develop criticism and self-criticism, those present at the meeting advocated the creation of a political directorate in each service, and also recognized the need to draft new instructions to party organizations and a new statute on military political organs.

In April 1955, the CPSU Central Committee decided that each service should have its own political directorate. Owing to this decision, unification of military and political leadership was attained in each service, and favorable conditions were created for consensus on the content of political and combat training of the troops, as well as for their mastery of modern armament and combat equipment.

In February 1956, the CPSU Central Committee appealed to the military party organizations with a special letter outlining the most pressing problems in improving military skills, party-political work, and discipline. In the letter it was emphasized that the large-scale introduction of new combat equipment into the Armed Forces required of all personnel more profound and diverse knowledge, continuous improvement of military skills, strict discipline, and good organization. The Central Committee called upon party organizations to bring their influence to bear

more strongly on all aspects of the life and activity of the troops, and to boldly expose and eliminate shortcomings interfering with increasing the combat efficiency of formations, units, and warships.

This Central Committee letter motivated communists and all Army and Navy personnel to further improve combat and political training and to further strengthen military discipline and organization.

The CPSU Central Committee's guiding concepts and directives on increasing party influence in the military formed the basis of new draft instructions to Army and Navy party organizations. The instructions were presented to the Central Committee in February 1957 by the USSR Ministry of Defense and the Main Political Directorate. The draft plan was discussed in the Secretariat and Presidium and was studied by a special commission. The draft instructions contained the principal statutes reflecting the fundamental changes in the military after adoption of the 1934 instructions. These statutes strengthened the Leninist principles of party leadership in the Armed Forces. On 27 April the Presidium ratified the new instructions to Soviet Army and Navy party organizations.

The October 1957 CPSU Central Committee plenary session adopted the resolution "On Improving Party-Political Work in the Soviet Army and Navy." The resolution noted that because of the concern of the Communist Party and the Soviet government during the postwar years, the Soviet Armed Forces reached a new, higher level in their development and were equipped with the latest types of weapons and combat equipment, including missiles and nuclear weapons. The moral-political state of military personnel was at a high level as well.

The complicated international situation and the arms race in the capitalist countries, as well as the need to protect the Motherland, obliged commanders, political organs, and party organizations untiringly to improve the discipline and combat readiness of the troops and to educate them in the spirit of boundless devotion to the Motherland and the Communist Party. The aforementioned resolution read: "This plenary session of the CPSU Central Committee considers a prerequisite for the solution of these problems to be further improvement in party-political work in the Soviet Armed Forces, the function of such work being to increase the fighting strength of the Armed Forces, to rally personnel around the Communist Party and the Soviet government, and to educate them in the spirit of selfless dedication to the Soviet Motherland, in the spirit of friendship between the peoples of the USSR, and in the spirit of proletarian internationalism."

Serious shortcomings in party-political work were noted in the resolution, which pointed out ways to eliminate them.

A 17 April 1958 resolution of the CPSU Central Committee and the USSR Council of Ministers significantly increased the powers of the military councils in the Soviet Army and Navy. The councils considered and resolved important questions on the life and activity of the Armed Forces, and were responsible to the CPSU Central Committee, the government, and the minister of defense for the state and combat readiness of the troops.²⁰ The former military councils under the commanders in chief of the services were reorganized as the Ground Forces Military Council, the Navy Military Council, the Air Force Military Council, and the National Air Defense Forces Military Council. The members of the military councils of the Armed Forces served also as deputies to the chief of the Main Political Directorate of the Soviet Army and Navy. A new statute on military councils was ratified.

Changes also took place in the structure of the political organs in the Armed Forces. The Main Political Directorate of the Ministry of Defense was reorganized as the Main Political Directorate of the Soviet Army and Navy. It was headed by General F. I. Golikov. Directorates were created in the Main Political Directorate to manage the work of the political organs in the services, and the services' political directorates were abolished. The post of member of a military council of a flotilla, fleet, army, or military district and the post of chief of the corresponding political directorate (or political section) were combined under a single incumbent. From June 1957, a member of a military council also served as chief of the political organ. In August 1960, a collegial organ was created to manage party-political work in the Armed Forces; this was the Bureau of the Main Political Directorate.

In October 1958, the party's Central Committee enacted a new statute on political organs in the Soviet Army and Navy. This statute specifically defined the role, status, and responsibilities of the political organs, as well as their structure and responsibilities. The statute explained, in part, that "in party-political work, the political organs are the leading party organs of the Communist Party of the Soviet Union in the Armed Forces of the USSR."²¹ The party organs were called upon, in their work, to do their utmost to increase the fighting strength of the Armed Forces, to ensure the all-embracing, day-to-day influence of the party on the life and activity of the Armed Forces, to rally personnel around the Communist Party and the Soviet government, and to mobilize personnel to do their duty in an exemplary manner.

The number of political organs increased. In December 1957, 84 previously abolished political sections were reinstated; and early in 1958, another 150 political organs were either reinstated or newly created.²² In April 1958, changes and additions were made in the instructions to Soviet Army and Navy party organizations to make them more accountable for implementing the party's military policy.

In 1959, the CPSU Central Committee decided to transform the political sections of the Ministry of Defense central organization, of military academies, and of research institutes into party committees. Later, such sections in military district staffs, fleets, groups of forces, and certain schools were also transformed into party committees. These measures promoted development of intraparty democracy and the growth of party activeness among officers who were party members.

An important event in Soviet Army and Navy affairs was the all-armed forces conference for secretaries of primary party organizations, which was preceded by conferences in the military districts and fleets. The conference was held in May 1960 in the Grand Kremlin Palace. More than 1,500 persons attended, including 1,258 secretaries of primary party organizations and 97 secretaries and organizers of party organizations, commissions, and groups. Those invited included commanders of military districts, groups of forces, and fleets, members of military councils (chiefs of political directorates), certain unit, formation, and ship commanders, deputy political officers, directors of military academies and schools, and Ministry of Defense employees from the central directorates and main administrations. Central Committee Presidium members L. I. Brezhnev, N. G. Ignatov, and M. A. Suslov participated in the work of the conference.

The reports and speeches at the conference reflected the increased activity of military party organizations and indicated improvement in the forms and methods of intraparty work. Participants spoke out in favor of creating primary party organizations at the battalion level, while advocating company party organizations with limited powers. They also proposed improvements in party work at military educational institutions and emphasized the importance of devoting more attention to Young Communist League activity in the Soviet Army and Navy, calling for stronger party guidance of such activity.

On 18 August 1960, the CPSU Central Committee considered and approved conference proposals on changes to the structure of party organizations in connection with the growing number of party members. Such a restructuring developed naturally and was needed to meet the growing demands of party work. The transformation of company and battalion party organizations into lower-level and primary organizations brought the primary organization closer to the personnel and to the practical problems encountered at the unit level. The company party organizations were now able to consider the suitability of candidates for admission to the party and could decide other important party questions.

Implemented during the period of party elections and regular party reports at the end of 1960 and the beginning of 1961, the restructuring of

party organizations considerably enlarged the circle of active party members and intensified the party's direct influence in units.

The content of the Marxist-Leninist education of generals and other officers was enriched considerably. In particular, their study focused on the components of Marxism-Leninism and on pressing problems of building communism. More attention was paid to the study of Marxist-Leninist teaching on war and the army, and to the theory and practice of training and indoctrinating servicemen. Political education in the units themselves was better organized. Once again, 50 hours of instruction per year were devoted to schooling in Marxism-Leninism. Officers' military and general education, as well as their interests and needs, were taken into account more fully when study groups were formed.

The ideological level of the theoretical training of unit and party-organ propagandists was raised. Refresher courses for propagandists on the teaching staff of the V. I. Lenin Military-Political Academy were expanded. Training programs for propagandists were organized by political organs at all levels.

In the political education of enlisted personnel greater emphasis was placed on a thorough explanation of the domestic and foreign policies of the Communist Party and the Soviet government, and more attention was devoted to explaining the history and combat traditions of the Soviet Armed Forces. A prominent place in oral and printed propaganda was devoted to the requirements of a Soviet serviceman's duty and to the moral principles of a builder of communism.

One of the central tasks of political and military indoctrination was to strengthen and develop the camaraderie between Soviet servicemen and their counterparts in the armies of the fraternal socialist countries. In mass agitational and cultural and indoctrination work, a great effort was made to explain to personnel the economic, political, and ideological sources of the indomitable might of the countries of the socialist fraternity. One manifestation of the strengthening combat unity between the armies of the socialist countries was the coordination of plans for party-political work and its implementation during joint Warsaw Pact exercises. Cultural relations between the fraternal armies were strengthened and underwent further development.

Members of the party and Young Communist League were at the forefront of socialist competition, which became widespread in the Soviet Armed Forces. The creative initiative of our servicemen was displayed in their quest for mastery of primary specialties and closely related skills. This initiative was also reflected in the growing number of outstanding servicemen, qualified specialists, and master specialists. The endeavor to shorten the time required to bring weapons and equipment into readiness

for combat, as well as the campaign to lengthen the interval between overhauls of combat equipment, further testified to the creative initiative of our servicemen.

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Against the background of the revolution in military affairs, the main trends and the content of specific measures for the organizational development of the Soviet Armed Forces depended upon the international situation and were determined by the profound changes in the economic, political, and spiritual life of Soviet society. With the advent of a publicly shared state, there was an increase in the number and complexity of the tasks facing the Armed Forces to secure the inviolability of the Soviet state and to safeguard the gains of socialism the world over. The guiding and directing role of the Communist Party in Army and Navy affairs grew, as did its ideological and organizing influence on service personnel.

The organizational development of the Soviet Armed Forces was greatly affected by qualitative changes in equipment and technology. The advent of fundamentally new weapons and the modernization of conventional weapons not only increased the fighting strength of the Soviet Army and Navy but also introduced substantial changes to their organizational structures and to the Armed Forces' methods of conducting combat operations. There were greater demands for better command and control, better combat training, and improved moral-political and psychological training.

Notes

1. *Problems of History*, 1976, No. 3, p. 77.
2. A. Ye. Yefremov, *Yevropa i yadernoye oruzhiye* [Europe and Nuclear Weapons] (Moscow, 1972), p. 16.
3. *CPSU in Resolutions* (Moscow, 1971), VII, 117.
4. *Ibid.*, p. 103.
5. *Narudnoye khozyaystvo SSSR 1922-1972. Yubileyny statisticheskiy vechegodnik* [National Economy of the USSR 1922-72: Jubilee Statistical Annual] (Moscow, 1972), p. 136.
6. *XXII s'yezd Kommunisticheskoy partii Sovetskogo Soyuza. Stenograficheskiy otchet* [22nd Congress of the Communist Party of the Soviet Union: Stenographic Record] (Moscow, 1962), III, 247.
7. *Leonid Il'ich Brezhnev. Kratkiy biograficheskiy ocherk* [Leonid Il'ich Brezhnev: A Brief Biographical Study] (Moscow, 1976), p. 49.
8. *Unocherednoy XXI s'yezd Kommunisticheskoy partii Sovetskogo Soyuza. Stenograficheskiy otchet* [Extraordinary 21st Congress of the Communist Party of the Soviet Union: Stenographic Record] (Moscow, 1959), II, 280.
9. *Fifty Years of the Armed Forces*, p. 500.
10. *Ibid.*, p. 501.
11. *Pravda*, 27 Aug. 1957.
12. *XXII s'yezd Kommunisticheskoy partii Sovetskogo Soyuza. Stenograficheskiy otchet*

- [22nd Congress of the Communist Party of the Soviet Union: Stenographic Record] (Moscow, 1962), I, 56.
13. *Vneocherednoy XXI s'yezd Kommunisticheskoy partii Sovetskogo Soyuza. Stenograficheskiy otchet* [Extraordinary 21st Congress of the Communist Party of the Soviet Union: Stenographic Record] (Moscow, 1959), II, 126.
 14. *Istoriya mezhdunarodnykh otnosheniy i vneshney politiki SSSR, 1945-1967 gg.* [History of USSR International Relations and Foreign Policy, 1945-67] (Moscow, 1967), III, 273.
 15. Lenin, XLV, 115.
 16. *Vneocherednoy XXI s'yezd Kommunisticheskoy partii Sovetskogo Soyuza. Stenograficheskiy otchet* [Extraordinary 21st Congress of the Communist Party of the Soviet Union: Stenographic Record] (Moscow, 1959), II, 126-27.
 17. *Ordenu Lenina Moskovskiy voyennyy okrug* [Order of Lenin Moscow Military District], p. 368.
 18. *Kiyevskiy Krasnoznamenny* [Red Banner Kievan], pp. 330-31.
 19. *CPSU In Resolutions*, VII, 296.
 20. *CPSU on the Armed Forces*, p. 353.
 21. As quoted in *Resheniya oktyabr'skogo Plenuma TsK KPSS v deystvii* [Implemented Resolutions of the CPSU Central Committee October Plenary Session] (Moscow, 1959), p. 41.
 22. Yu. P. Petrov, *Stroitel'stvo politorganov, partiynykh i komsomol'skikh organizatsiy armii i flota (1918-1968)* [Organizational Development of the Political Organs and Party and Young Communist League Organizations in the Army and Navy (1918-68)], p. 446.

Chapter 13. Further Development and Improvement of the Soviet Armed Forces

(1962-77)

1. Intensification of the Arms Race in the Capitalist World. Strengthening the Economic and Defensive Potential of the USSR

The CPSU program adopted at the 22nd Party Congress reflected the universally significant fact that the worldwide system of socialism had entered a new period of development. The Soviet Union, having built a developed socialist society, began the struggle for a gradual transition to communism. A number of countries of the socialist fraternity, having laid the foundations of socialism, began building a developed socialist society. In competition with capitalism, socialism was winning one major victory after another.

Within the capitalist camp, its inherent contradictions became more acute than during the first postwar years. Ruling circles in the United States continued their cold war policy with unabated stubbornness and intensified the strategic arms race, getting more and more countries involved. At the same time, under the influence of irreversible changes in the world, and under the influence of the peace-loving policy of the Soviet Union and the other socialist countries, a striving to relieve international tension became more distinctly discernible among sober-minded statesmen from the West.

At the beginning of the sixties, after a noisy campaign about the "missile lag," a new strategic concept called "Flexible Response" was promoted in the U.S. This strategy was based on preparation for a worldwide nuclear war and for limited wars that might not include the use of nuclear weapons. At the same time, an unprecedented program was undertaken for a military buildup, calling for rapid development of strategic offensive forces. This task was assumed primarily by the U.S. and partly by Britain. The other NATO countries continued to strengthen their ground, air, and naval forces.

In the buildup of the American armed forces, the main emphasis shifted from strategic aviation to the so-called "invulnerable missile forces":

Minuteman missiles launched from silos, and nuclear submarines armed with Polaris missiles. In 1965, the U.S. had more than 900 land-based ballistic missiles and 560 submarine-launched missiles, in addition to strategic aviation.¹ By the end of the sixties, the U.S. reached the planned level of delivery systems and transferred the main effort to stockpiling nuclear warheads at such a rate that the number of such devices would exceed the number of carriers by a factor of four or five within a few years.

Imperialism continued to engage in military adventures that constituted a serious threat to peace. The most infamous and bloody of them was the long period of aggression in Indochina. From 1965 onward, the U.S. expanded its military operations against the Democratic Republic of Vietnam, subjecting it to bombardment. By 1969, more than 550,000 American soldiers, as well as the 80,000 sailors and 200 warships in the U.S. 7th Fleet, were participating in this bandit war, not counting the South Vietnam puppet government's troops, who were equipped by the United States.² The Near East turned into a danger zone as a result of Israel's criminal aggression against the Arab states. In 1968, the forces of imperialism and counterrevolution tried to overturn the socialist system in Czechoslovakia.

Under the influence of further substantial shifts in the correlation of forces on the international arena in favor of socialism, and in view of the approximate equality (parity) between the USSR and the U.S. in strategic arms, American ruling circles once again reviewed the concepts of their military policy. In 1971, a modernized version of the Flexible Response strategy was put forward as the "Realistic Deterrent" strategy. It had three underlying principles: power, partnership, and negotiations. Precedence in this triad was assigned to military power, with which American imperialism could wage either a universal nuclear war or local wars. Partnership presupposed more active participation of aggressive bloc member countries in the implementation of American military policy, especially in combating the national liberation movement. Also assumed was the possibility of conducting negotiations and concluding international agreements with the socialist countries, particularly the Soviet Union, from a position of strength.

It is in accordance with this strategy that trends in the organizational development of the U.S. armed forces are being determined, and that new criteria are being established for the levels and rates of development of their component elements. The drafted army is being replaced by the hired army. Having declared the doctrinal aim of the "sufficiency" of their armed forces, American military circles have adopted a course of qualitative improvement and increased mobility of strategic systems and general purpose forces, permitting them to be used in wars of various kinds and scales. These circles are striving to secure U.S. superiority over

the USSR in the development and production of the latest types of strategic offensive arms.

There have been several trends in the improvement of nuclear missile weaponry: the dispersal of missile launch sites; the introduction of multiple-charge, maneuvering, and homing warheads; the introduction of rapidly retargetable missiles; the development of early-warning systems; and the development of reconnaissance, communications, and navigation satellites. By 1977, according to the American press, the U.S. planned to have the following missiles in its arsenal: 54 Titan II and 500 Minuteman II missiles with single warheads; 500 Minuteman III missiles with triple warheads; 10 conventionally-powered submarines, each armed with 16 Polaris A3 missiles with three warheads; and 31 nuclear-powered submarines, each armed with 16 Poseidon C3 missiles with 10 warheads.

During the late sixties and early seventies, intensified development work was done in the U.S. on a new generation of strategic offensive weapons: the mobile MX intercontinental missile, the B-1 strategic bomber, and the Trident submarine. Also developed were strategic cruise missiles capable of flying at extremely low altitudes and possessing a small radar cross section, thus making them difficult to detect with modern radar facilities. Abroad, it is believed that the cruise missile will become the fourth element in the United States' strategic offensive armament, the other three being the ground-based intercontinental missile, the submarine-launched ballistic missile, and the heavy bomber. According to the American press, if effective steps are not taken to ban new weapons of mass destruction, armament firms will receive contracts for the production of strategic offensive weapons that are even more powerful and destructive than those presently in existence.

However, experience has repeatedly demonstrated the futility of the efforts by American militaristic circles to secure military superiority over the USSR by devising newer and better weapons of mass destruction. "Those who count on achieving military superiority over the Soviet Union by recourse to such weapons," writes Marshal of the Soviet Union D. F. Ustinov, minister of defense, "should recall that our national economy, technology, and scientific knowledge are presently at such a high level that we are in a position to proceed promptly with the production of any type of weapon on which the enemies of peace would like to stake their fortunes."

In the organizational development of its armed forces, the U.S. is paying particular attention to the so-called "Oceanic Strategy," whereby the main strength of strategic offensive forces is transferred to the expanses of the world's seas. According to American military officials, not only will such dispersal of strategic armament systems render them less vulnerable, it will reduce the number of targets subject to retaliation on U.S. territory.

In addition, general purpose forces are being developed rapidly, as are conventional weapons. The NATO countries are keeping the total strength of their armies at 5,600,000 men.⁴ The total strength of the armed forces of imperialist aggressive blocs in Asia and the Pacific Ocean basin exceeds 3 million men.⁵

Naturally, all this has obliged and is obliging the Soviet Union to implement the necessary countermeasures. Formulating its military policy, the Communist Party proceeds from Lenin's premise that while imperialism remains, there will be a danger of aggressive wars. The party program contains the following passage: "The CPSU considers the protection of the socialist Fatherland, consolidation of the defense of the USSR, and growth of the might of the Soviet Armed Forces to be the sacred duty of the party and of the entire Soviet nation, and to be an extremely important function of the socialist state."⁶

The October 1964 plenary session of the CPSU Central Committee was of exceptionally great importance for strengthening the Soviet state and its Armed Forces. The implementation of its decisions testified to the stability of general party policy, to the steadfast adherence to Lenin's principles of party leadership, to the party's resolve and determination to eliminate shortcomings that impede the country's progress toward communism, and to the party's avoidance of subjectivism and hasty conclusions divorced from reality. New opportunities unfolded for solving problems of political, economic, and military development.

The 23rd (1966) and 24th (1971) Party Congresses and Central Committee plenary sessions were milestones on the road to a material and technological base for communism, and were instrumental in increasing the strength of the Soviet Armed Forces and the defensive capability of the country. The proceedings and documents from these meetings defined specific methods of building a communist society and substantiated combining the achievements of the scientific and technological revolution with the advantages of developed socialism and efficient production to form an organic whole. Against a background of meeting and exceeding plans for the national economy, the directives ratified by the party congresses for the 8th and 9th Five-Year Plans testified to a further rise in the economic and defense potential of the USSR.

Summarizing the building of communism, the 24th CPSU Congress noted that the party and its Central Committee constantly kept at the center of attention problems concerning the organizational structure, strength, and combat efficiency of the Soviet Armed Forces. A resolution on the Central Committee's report contained this passage: "The utmost increase in the defensive might of our Motherland, indoctrination of Soviet people in the spirit of extreme vigilance, and constant readiness to

protect the great gains of socialism will continue to remain one of the most important tasks of the party and the nation.””

The 25th CPSU Congress, an event of worldwide importance, was convened in February 1976. The congress discussed General Secretary L. I. Brezhnev's "Central Committee Report and Immediate Party Tasks in Domestic and Foreign Policy." The congress was in full agreement with the policy and practical activity of the Central Committee, and proposed that the tasks and tenets set forth in the Central Committee's report serve as a guide to all party organizations in the performance of their work. Also ratified were the "Main Trends in the Development of the National Economy of the USSR During 1976-80." A resolution adopted by the CPSU Central Committee entitled "The Sixtieth Anniversary of the Great October Socialist Revolution" noted that the 25th CPSU Congress was characterized by "solidarity of party and nation, inspiring prospects, and purposeful efficiency.””

The party's political course outlined by the 25th Congress ensures a continuous increase in the economic and defensive strength of the USSR. The Soviet Union's power has grown tremendously during the 15 years since the inception of the CPSU program. The country's productive assets increased by a factor of 1.5 during the 9th Five-Year Plan alone, and have virtually doubled since 1965. In a single decade our Soviet land has matched an economic growth which took almost half a century to achieve. About two thousand new large industrial enterprises were put into operation during the Five-Year Plan period. Such is the mighty pace of a developed socialist society.

An important new stage in the development of the Soviet Armed Forces and in the improvement of the defense potential of the USSR will be the completion of the 10th Five-Year Plan, which is to be characterized by quality and efficiency. Assessing the importance of this period, the 25th Congress indicated that it would be a period of "intensified social production, fuller exploitation of the potentialities of the national economy to increase the national wealth, and further strengthening of the country's economic power and defensive capability.”” The Communist Party and the Soviet government also formulated a long-term plan for the development of the national economy until the year 1990, predicting twice the growth in material resources in comparison with the preceding 15 years.

Table 9 portrays the continuous increase in Soviet economic power, which provides a firm foundation for our great defensive capability.

As may be seen, the Soviet economy made great strides during the sixties and seventies. The amount of electric power generated in the USSR in 1975 exceeded the 1960 figure by a factor of 3.5. The corresponding factors for coal and oil production were 1.3 and 3.3 respectively. Twice as

Table 9. Output of Key Industrial Commodities in the USSR.¹²

Commodity	1965	1970	1975	1980 (plan)
Electric power, billion kwh	507	740	1038	1340-1380
Coal, million tons	578	624	701	790-810
Oil, million tons	243	353	491*	620-640*
Iron, million tons	66.2	85.9	103	
Steel, million tons	91	116	141	160-170
Rolled metal, million tons	71	92	115	115-120

*Including gas condensate.

much iron was smelted in 1975 as in 1960, and twice as much steel and rolled metal was produced.

Taking into consideration the growing potentialities of the Soviet economy, the 25th CPSU Congress formulated and developed the principles of the party's economic policy under the conditions of a developed socialist society for the forthcoming Five-Year Plan and for the longer term. The 10th Five-Year Plan provides for a consistent upsurge in the material and cultural well-being of the nation based on dynamic and proportional development of socialized production and improvement of its efficiency, on acceleration of scientific and technological progress, on an increase in the productivity of labor, and on the utmost improvement in the quality of work in all sectors of the national economy. The core of the party's economic strategy, both in the 10th Five-Year Plan and beyond, is a steady increase in the country's economic strength, mainly by expansion and radical renovation of productive assets, and by securing a stable, balanced growth of heavy industry.

In his day, M. V. Frunze wrote that "when a new project (economic, cultural, or other) is at hand, it is always appropriate to ask, 'How will the results of this project correlate with national defense requirements? Would it not be possible, without prejudice to peacetime needs, to make the project serve certain military purposes?' " " In the party's economic policy, civilian and military interests are optimally combined. The emphasis on the development of heavy industry permits the equipping of the Armed Forces to be maintained at the necessary level. At the same time, the defense industry makes an important contribution to the development of the peaceful sectors of the national economy. The 24th CPSU Congress noted that the defense industry puts out 42 percent of the production forthcoming for civilian purposes. In view of the high scientific and technological level of the defense industry, the imparting of its experience, inventions, and discoveries to other sectors of the economy is considered to be of primary importance.¹²

A special responsibility is borne by the machine industry, which is called upon to supply all sectors of the national economy with modern machinery and equipment. The output of the machine industry has increased by 150 percent during the portion of the 10th Five-Year Plan already elapsed. More attention is being placed on machine-tool construction and instrument-making, and on the electrical engineering and electronics sectors.

Of great economic importance is the development of electric power engineering, which determines the power supply per production unit and consequently governs the technological efficiency of the entire national economy, and, in particular, of its new sector, nuclear power engineering. Nuclear power stations have been, and are being, built in our country with fast reactors, which use nuclear fuel resources 10 to 15 times more efficiently than conventional reactors. Of great economic and scientific importance is controlled thermonuclear fusion. In this field, Soviet scientists occupy a leading place in the world. Research is being done on the direct conversion of heat energy into electric energy, which would contribute immensely to the electrification of the national economy.

The petroleum industry continues to grow at a rapid pace. Under present conditions, with jet-powered military aircraft, much armor, and many motor vehicles, the demand for fuels and lubricants has risen sharply. Whereas during World War II, 4 to 5 tons of fuel sufficed to fuel a bomber, the amount needed to replenish a modern strategic bomber is many times greater.

Expansion of ferrous and nonferrous metallurgy is of primary importance for strengthening the logistical base of the Armed Forces. This is due to the increased complexity of weapons and military equipment, to an increase in weight parameters, and to the wider variety of metals used. A modern fighter aircraft weighs not 3 to 3.5 tons, but 20 to 30 tons; and a modern strategic bomber not 15 to 18 tons, but 200 to 250 tons. As well as steel, aluminum, and titanium, a large number of rare, rare-earth, and trace elements are required to manufacture modern weapons and military equipment.

Further development of the chemical industry will permit an increase in the output of synthetic materials, especially polymers, which are widely used in aviation, missile technology, electronics, and other fields. Advances in chemistry ensure the development of new, more efficient technological processes that are of major importance for the production of weapons and military equipment.

The measures implemented by the party to strengthen and develop specialization and concentration of agricultural production will ensure that the requirements of the Armed Forces and the civilian population are

fully met and will permit the necessary reserves of food and raw materials to be created.

Of great importance, not only for the national economy but also for defense, is the development of road, rail, river, air, sea, and pipeline transport and various means of communication. Special attention is being paid to increasing the capacity and efficiency of the entire transport system and to improving the transportation links between the various economic regions of the country.

With the building of a developed socialist society, the problem of equalizing the levels of economic development in the union republics has been solved and more favorable conditions have been created for situating the means of production in accordance with the national interests of increasing efficiency and economic potential, which at present are factors of no small importance.

Characteristic of the party's economic policy is the development of new and existing territorial production complexes and industrial centers. Examples of such undertakings include the industrial-agrarian zone of the Kursk Magnetic Anomaly, and the West Siberian, Angara-Yenisey, and South Tadzhik complexes. Also of significance is the creation of such complexes within reach of the Baykal-Amur Railway.

Satisfactory progress is being made in meeting the goals set by the 10th Five-Year Plan: for 1975-80, the country's eastern regions are to provide the planned nationwide increases in oil, gas, and aluminum production in their entirety, more than 90 percent of the increase in coal production, approximately 80 percent of the increase in copper production, and so forth.

Significant success has been achieved in raising the effectiveness of production by introducing the latest achievements of science and technology and by improving product quality. During the 9th Five-Year Plan alone, industry assimilated more than 16,500 new machine tools, devices, and instruments, which was twice as many as during the 8th Five-Year Plan. Improvements in the productivity of labor accounted for 84 percent and 78 percent of the production increases in the manufacturing and construction sectors respectively. In agriculture, the entire increase in production was attributable to such improvement.

The increase in the USSR's defense potential is inseparable from the major sociopolitical and cultural achievements of recent years. A comprehensive description of them is contained in the Central Committee's resolution "On the Sixtieth Anniversary of the Great October Socialist Revolution," which includes this passage: "Developed socialism heralds a high degree of maturity throughout the entire system of social relations,

which are gradually becoming communist. Developed socialism is characterized by inviolable ideopolitical and social solidarity of the working people, their selfless dedication to the noble ideals of the Communist Party, and their fidelity to the principles of Marxism-Leninism. Today, developed socialism is the highest achievement of social progress."¹³

The fact that a developed socialist society has been built in our country is recognized in the new USSR Constitution. A special chapter entitled "Protection of the Socialist Fatherland" has been included in the Fundamental Law of the Soviet state for the first time. Recorded in this chapter are the reasons for creating the Armed Forces and for instituting universal military service in the USSR. The Constitution explains that our nation expects the Armed Forces to protect our socialist Fatherland without fail, and to be at constant combat readiness, thus ensuring the prompt repulse of any aggressor.

The structure of the Armed Forces clearly embodies the solidarity of the working class and peasantry—the political base of the Soviet system—and the prosperity and good relations between the nationalities that inhabit the USSR. The Soviet Army, as a part of the nation, lives in harmony with it, the military and civilian populations being merged into a single entity.

From the viewpoint of internal security, the Soviet Union does not need an army. Our army has lost its internal function and has become national in character. However, this has not changed its class essence, nature, and purpose. "The class character of a socialist army," said L. I. Brezhnev, "is determined by its vital association with the masses of workers and peasants. Such an army performs its social role of protecting socialism under the leadership of the working class and its party with the active support of the entire nation."¹⁴

The working class of the USSR, as the leading force of Soviet society, is constantly manning the Armed Forces with worthy representatives. More than half of our active personnel have worked in the manufacturing, transportation, or construction sectors before enlistment.

The number of vocational and technical schools in the country has doubled during the past 15 years, and the number of students in these schools has increased by a factor of almost 4.5 during the same period. Universal secondary education was introduced in the Soviet Union during the 9th Five-Year Plan. The country's training establishments produced about nine million specialists with special secondary or higher education. As a result, new personnel in the Armed Forces have higher, secondary, or incomplete secondary education. Every third draftee has acquired a military specialty in the training organizations of DOSAAF ['Voluntary Society for Assistance to the Army, Air Force, and Navy'—U.S. Ed.].¹⁵

These changes prompted the USSR Supreme Soviet to enact a new Universal Military Service Law in 1967. The new law took into account the sociopolitical development of society and the rapid military technological progress that brings constant innovation in the organization and combat employment of the troops. The law reduced by 1 year the period of active military service, established a single draft age for all citizens, authorized the call-up of young reserve officers into the Army for 2 or 3 years, and introduced elementary military training for young people.

The party program conducted to promote sociopolitical development and to raise the standard of living during the 10th Five-Year Plan is of great importance for further strengthening the Armed Forces. The task is to secure, on the basis of a stronger economy and higher production efficiency, fuller satisfaction of the growing material and spiritual needs of the nation, logical development of the socialist way of life, and further improvement in the social structure of Soviet society.

The 25th CPSU Congress noted the active participation of Armed Forces personnel in certain tasks confronting the national economy, and once again emphasized the importance of the military's role in indoctrinating young people. In a Central Committee report, L. I. Brezhnev said, "Draftees enter the Army as youths without any experience in life, but they leave it as seasoned, disciplined men with technical knowledge, vocational skills, and political awareness."¹⁶ Engaging in productive labor, they reinforce the Soviet nation in its campaign for communism.

Participation of military units in harvesting operations reinforces the unity between army and nation. An example of this was the use of 55,000 military vehicles to transport grain in Kazakhstan in 1976. Other instances of military-civilian cooperation include the participation of Army railroad troops in crucial work on the Baykal-Amur Railway. Army construction personnel are building living accommodations, roads, and bridges.

The very close alliance of workers and servicemen is based on the deep democratism of the Soviet political system. This is a result of the very nature of the socialist way of life. Servicemen participate actively in domestic sociopolitical measures. More than 17,000 representatives of the Armed Forces are either deputies of soviets or members of district, municipal, regional, or central party organs. Military patronage work has greatly increased in scope.

The above-mentioned DOSAAF, which has been awarded the Order of Lenin, unites in its ranks tens of millions of blue-collar workers, collective-farm workers, white-collar workers, and students. Its organizations engage in active propagation of military skills, prepare young people for military service, and develop forms of sport involving military equipment, all in accordance with a joint CPSU Central Committee-USSR

Council of Ministers resolution, dated 7 May 1966, entitled "The State of the Voluntary Society for Assistance to the Army, Air Force, and Navy (DOSAAF USSR), and Measures to Improve Its Work."

While strengthening the country's economic and defense potential, the Communist Party and the Soviet government have maintained, on the international arena, a policy based on the principles of Marxism-Leninism and proletarian internationalism. The military and political cooperation of the socialist countries has been expanded and strengthened still further within the Warsaw Pact. Decisions affecting the defensive capability of the signatories and the development of the fraternal armies have been made at sessions of the Political Consultative Committee. For example, at the Budapest meeting in 1969, important documents intended to improve the Warsaw Pact's military organization were ratified: the Statute on the Defense Ministers Committee, a new Statute on the Joint Armed Forces and Joint High Command, and so forth.

Until July 1967, the commander in chief of the Joint Armed Forces of the Warsaw Pact states was Marshal A. A. Grechko. In July 1967 he was replaced by Marshal I. I. Yakubovskiy, and since January 1977 Marshal of the Soviet Union V. G. Kulikov has occupied this post.

Owing to the coordinated policy of the fraternal Marxist-Leninist parties, the Joint Armed Forces are developing on the basis of the powerful military and economic potential of the socialist countries and through maximum utilization of all the advantages of their close political, economic, and military cooperation. At the end of the sixties and the beginning of the seventies, the member countries of the Council for Mutual Economic Aid underwent a transition to intensified socialist integration, having adopted the Comprehensive Program for Economic Cooperation in 1971. As the most powerful country in the socialist world, the Soviet Union renders considerable aid to the fraternal countries in the development of their armies.

An important form of cooperation is the coordination of military technical policy, which creates a consensus on the supply of modern weapons to the armed forces. The fraternal socialist armies have an advanced organization and a scientifically developed system for the operational and combat training of naval and ground forces.

Owing to the concern of the fraternal communist and workers' parties, there is constant improvement in the activity of the Defense Ministers Committee, the Military Council, the Joint High Command, the Staff, and the Technical Committee of the Warsaw Pact members. Their efforts, directed toward the formulation of proposals and recommendations to increase the defensive capability of the allied countries, ensure that in the Pact there is harmony and purposefulness in military cooperation, as well

as effective handling of the development of the Joint Armed Forces and improvement of their combat capability and readiness.

The military cooperation of the socialist armies has strengthened and grown in the active struggle against the forces of imperialism. In August 1968, at the request of the Czechoslovak nation, and in accordance with the terms of the Warsaw Pact, the allied troops of five socialist countries—Bulgaria, Hungary, the German Democratic Republic, Poland, and the Soviet Union—entered Czechoslovakia, thus disrupting the plans of domestic counterrevolution and international imperialism to overthrow the socialist regime in that country, to undermine and weaken the socialist fraternity, and to create a potential seat of war in Central Europe.

The socialist countries rendered all possible aid to struggling Vietnam. The Soviet Union supplied the Democratic Republic of Vietnam with aircraft, missiles, tanks, artillery, small arms, and ammunition. Officers of the Vietnamese People's Army were trained in the USSR, as were more than ten thousand students and vocational trainees. Military and other Soviet specialists helped Vietnamese soldiers to master modern combat equipment and to defend the Democratic Republic of Vietnam effectively."

Owing to the heroism and selflessness of the Vietnamese people, to the support of the socialist countries, and to progressive world opinion, the interventionists and their accomplices were expelled from the country. Imperialism's most formidable post-World War II attempt to deal arbitrarily with a socialist country by force of arms and to suppress the national liberation movement had failed. One of the most dangerous hotbeds of war which threatened to unleash a universal armed conflict was extinguished.

The development of international events showed that imperialism was powerless to change the world situation in its favor to crush the mighty forces of socialism and democracy. The western countries were obliged to conclude a number of important international agreements that promoted a lessening of international tension. Confirming itself with greater force is the correctness of the view held by the CPSU and the other fraternal Marxist-Leninist parties that the main trend of historical development in the present epoch—a trend shaped by the successes of the worldwide system of socialism, by the favorable influence it exerts on international politics, and by the growth of the forces struggling against imperialism—is toward a socialistic restructuring of society.

Especially fruitful results came from the Soviet Union's efforts to implement the Peace Program proposed at the 24th CPSU Congress. An integral continuation of that program was the program adopted by the 25th Party Congress to strive for peace and international cooperation and

for the freedom and independence of nations. The Political Consultative Committee of the Warsaw Pact states put forward important initiatives.

The Final Act of the Conference on Security and Cooperation in Europe, signed at Helsinki in August 1975 by high-ranking representatives of 33 European states, the U.S., and Canada, opened up new prospects for lasting peace and security among nations.

The campaign to stop the arms race and to bring about disarmament has remained an important part of Soviet foreign policy closely related to the organizational development of our Armed Forces. In view of the unwillingness of the Western powers to solve these problems decisively, the USSR has put forward partial measures. Agreements prohibiting or limiting the production, testing, and use of certain weapons of mass destruction have been concluded. The signing of two such agreements between the USSR and the U.S. took place in May 1972. One was a permanent treaty on the limitation of antiballistic missile systems, and the other was an interim agreement to limit strategic offensive arms.¹⁸ Both documents were based on the principle of equal security and gave neither party any unilateral military advantages.

According to the treaty on the limitation of antiballistic missile systems, both parties were obliged not to develop nationwide antimissile defense systems. The USSR and the U.S. were allowed no more than 200 antimissile missiles to cover two areas: the national capital and one intercontinental ballistic missile base. The protocol signed in July 1974 reduced the number of permissible antiballistic defense complexes from two to a single complex with 100 antimissile missiles.

The interim agreement to limit strategic offensive weapons intended that both parties would refrain for 5 years from building new launch facilities for land-based strategic offensive missiles or submarine-based ballistic missile launchers. The agreement also placed a limit on the number of modern ballistic missile submarines allowed.

When high-ranking representatives of the USSR and the U.S. met at Vladivostok in November 1974, the basic content of a new agreement to limit strategic offensive weapons was worked out, and the number of delivery systems allowed each party was limited to 2,400, including 1,320 missiles with multiple warheads.¹⁹

The Soviet-American agreements stemmed from a declaration that, with approximate overall equality (parity), neither country would increase the power of its strategic weapons. Within the framework of overall equality, the USSR and the U.S. retained noticeable differences (asymmetries) in certain components of their armed forces. These differences were due to the geographic location of the country in question, the nature



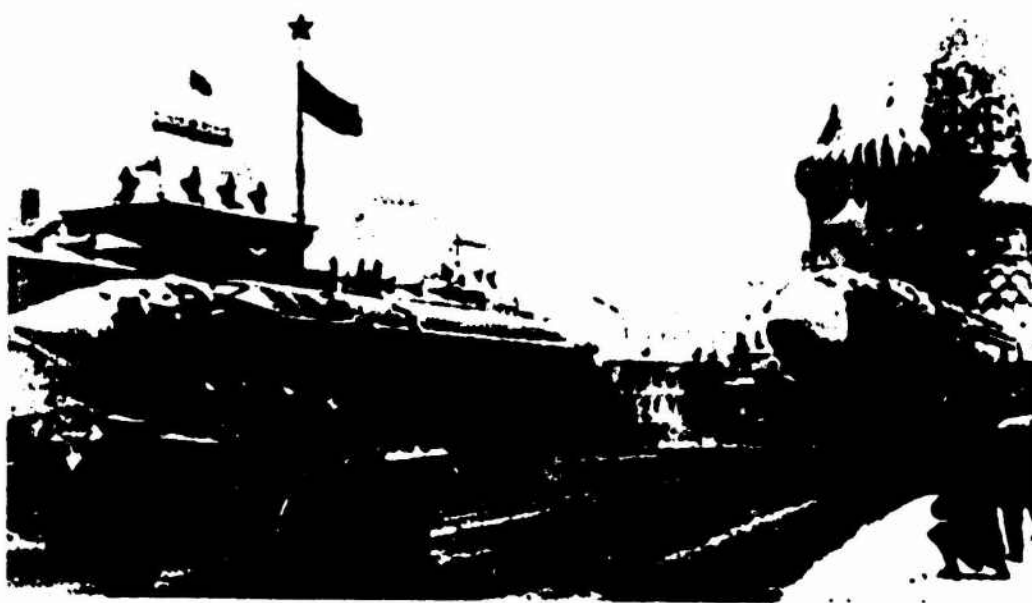
L. I. Brezhnev, General Secretary of the CPSU Central Committee, Chairman of the Presidium of the Supreme Soviet of the USSR, Chairman of the Defense Council of the USSR, Marshal of the Soviet Union.



Members of the Armed Forces of the USSR welcome the delegates to the 25th Congress of the Communist Party of the Soviet Union.



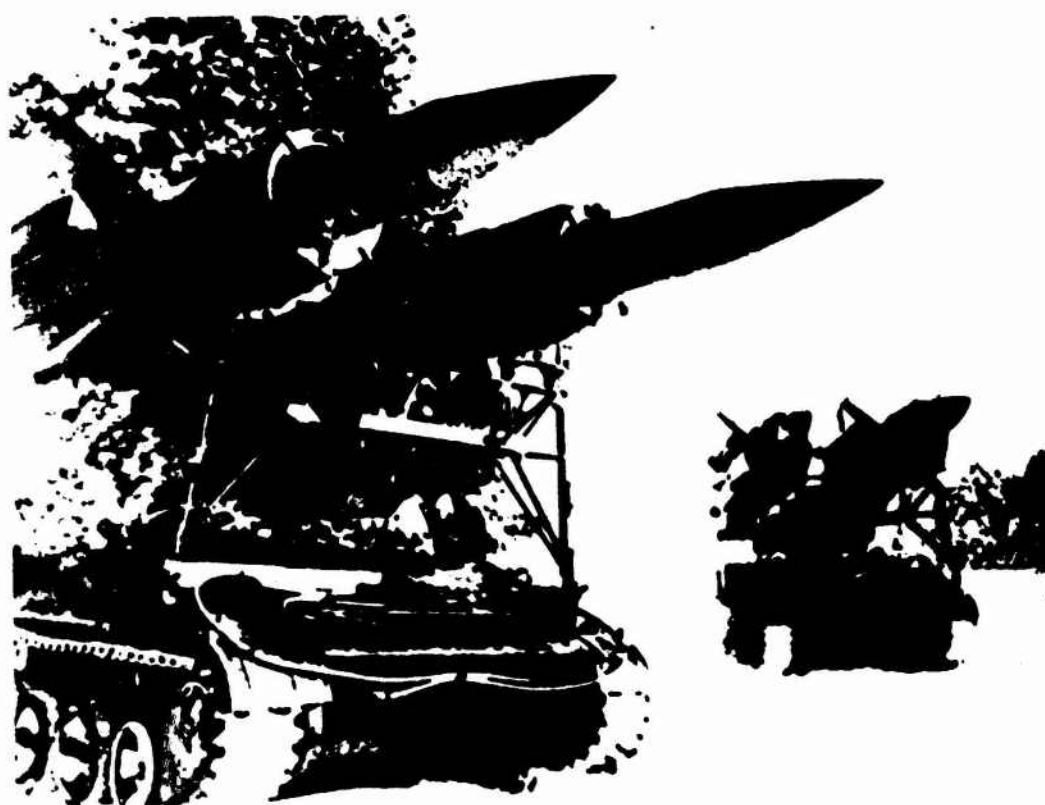
Member of the Politburo of the Central Committee, Minister of Defense, Marshal of the Soviet Union D. F. Ustinov, Chief of the Main Political Directorate of the Army and Navy A. A. Yepishev, and General of the Army N. V. Ogarkov (now Chief of the General Staff, Marshal of the Soviet Union) among men of the Northern Group of Troops during the joint exercise "Shield-76."



These missiles have immense destructive power.



National Air Defense Force missiles.



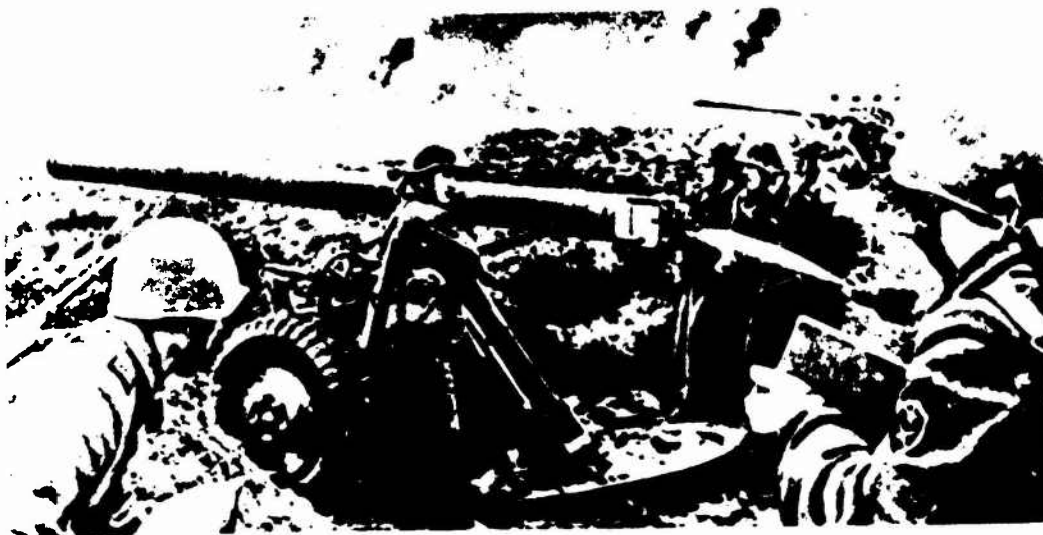
Ground Force air defense missile launchers.



Infantry combat vehicles.



Political information.



Mortarmen.



"To your tanks!"



Rocket artillery crews drilling.



Tanks attacking.



Special decontamination of combat equipment.



Tanks crossing a water obstacle.



Airborne troops' combat equipment.



Paratroopers on exercises.



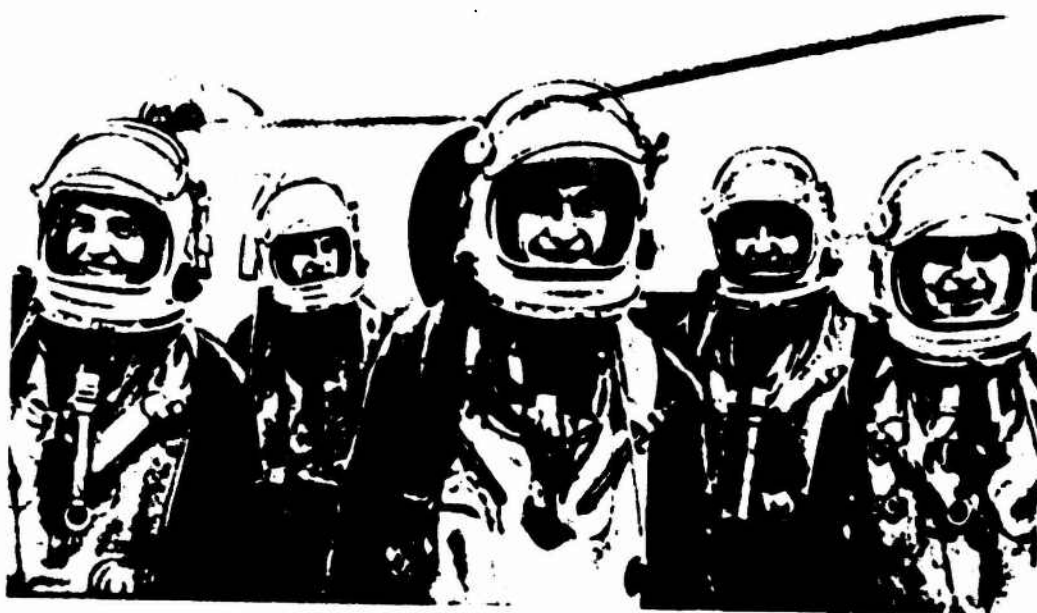
Signal troops on exercises.



Academy students study engineer equipment.



Fighters.





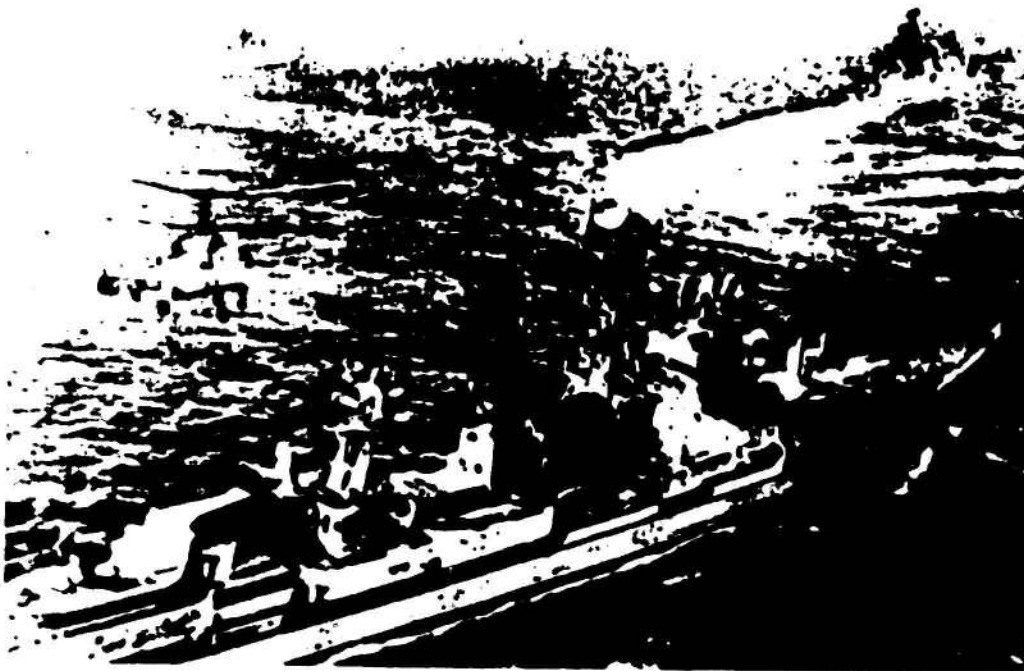
Refueling a missile-armed aircraft in flight.



Fire-support helicopters.



Nuclear submarines.



Far from their home port.



To the "enemy's" shore.



Amphibious assault force landing from hovercraft.

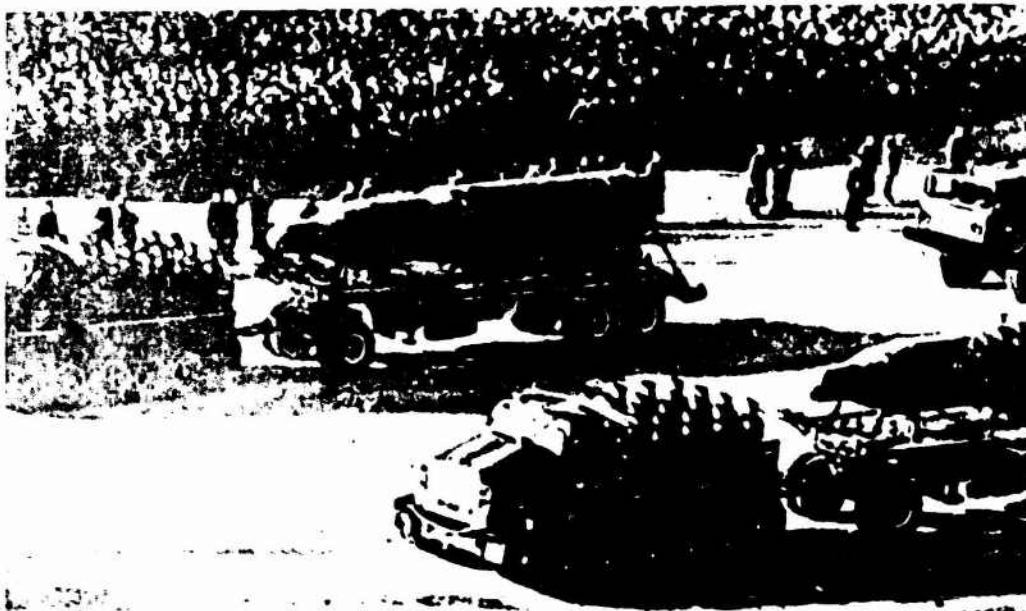


Classmates, comrades in arms.





Military parade in Red Square.



of possible threats to its security, its traditions of military development, and the technical specifications of individual weapon systems.

Any disruption of this equality, such as equipping the armies with new weapon systems, is fraught with serious consequences: countermeasures, a new round of the arms race, destabilization of the international situation, and fresh political difficulties. In view of this, the Soviet government, for its part, proposed that development work on the Trident missile submarine and the B-1 bomber in the U.S., and on similar systems in the USSR, be prohibited. It was also proposed that American and Soviet warships and submarines with nuclear weapons on board be withdrawn from the Mediterranean Sea, that conventional armaments be reduced, and so on.

However, imperialism does not intend to withdraw from its positions. It is striving to disrupt detente and to bring back the Cold War. The militarist elite, representatives of the military-industrial complex, and revanchists, as well as profascist and Zionist elements, are constantly galvanizing the "Soviet threat" and "Soviet military advantage" myths, thus increasing the scale of anticommunist propaganda.

Aggressive aspirations have always been alien to the Soviet Union, which never treads the path of aggression against other nations. "Our approach to these questions," said L. I. Brezhnev, "may be formulated as follows: the defensive potential of the Soviet Union must be sufficient to deter anyone from disturbing our peace. Not the course to supremacy in arms, but the course to their reduction, to a relaxation of armed confrontation—such is our policy."²⁰

The present tendency toward a lessening of international tension has averted the threat of a nuclear collision. However, this tendency is not irreversible and does not guarantee the world against possible provocations by reactionary elements of the Western powers. The nature of imperialism has not changed. It has not lost its aggressive essence. The Soviet Union is therefore obliged to strengthen its Armed Forces.

2. Accelerated Scientific and Technological Progress. New Materiel for the Armed Forces

Scientific and technological progress is an important source of the great successes and accelerated development achieved by our national economy. This progress is creating a qualitatively new material base for society and for social progress, and is increasing the productivity of labor, thus ensuring even better equipment for our Armed Forces. This is because the discoveries of science and the achievements of technology are finding

prompt practical application in daily life. Their introduction into the economy is playing a decisive role in power engineering, public works, machinery production, automation and control systems, as well as in the elimination of physical labor from the production process. At the present stage of scientific and technological progress, science is turning into a direct productive force in society, and its role is steadily gaining importance.

Our scientists are concentrating on the most important and promising scientific and technological trends. Fundamentally new tools and highly efficient technological processes are being developed, control systems are being automated, new materials are being produced, and new forms of energy are being sought. In pure and applied research, emphasis is being placed on mathematics, cybernetics, nuclear physics, solid-state physics, plasma physics, quantum electronics, chemistry, biology, the social sciences, and those sciences associated with the study and use of space for peaceful purposes.

On the instructions of the party's Central Committee and the government, a comprehensive program for scientific and technological progress and its socioeconomic consequences has been formulated for 1976-90, and a start has been made on its implementation. This program gives guidelines for the solution of important economic problems.

Soviet nuclear engineering progressed rapidly during the sixties and seventies. The I. V. Kurchatov Nuclear Power Station at Beloyarskiy (the first production station in the Soviet Union) fed current into the Sverdlovsk power system from its first unit in April 1964. Whereas the total capacity of Soviet nuclear power stations was only about one million kilowatts in 1967, two units of one million kilowatts each went into service at the V. I. Lenin Nuclear Power Station at Leningrad during the 9th Five-Year Plan alone. Nuclear power stations will account for approximately one-fifth of all new capacity put into service during the 10th Five-Year Plan (1976-80).

Nuclear power plants of progressively greater power are being created. The nuclear icebreaker *Arktika*, with a displacement of 20,000 tons, was commissioned in the Soviet Union in 1975.

Much progress has been made in missile construction, one of the most complex branches of engineering which unites all the achievements of modern science and is supported by the most advanced technology.

A basic achievement of spacecraft engineering in the USSR was the creation of powerful engines with exceptionally high specifications. Their design and development utilized the latest achievements of thermodynamics, hydrodynamics, gas dynamics, heat transfer, stress analysis, chemistry, computer technology, measurement techniques, vacuum technology, electronics technology, and plasma technology.²¹

Second-generation computers employing semiconductor and magnetic elements were introduced at the end of the fifties. Third-generation machines, with great productivity and program compatibility, became available in 1972. Computers with integrated circuits are now being produced.

Proceeding on a course leading to comprehensive development of science and technology, the Communist Party and the Soviet government are making full use of the advantages inherent in the socialist economic system. Opening the road to scientific and technological progress, this system, in conjunction with the party's scientifically grounded policy, permits such progress to contribute effectively to the country's defense. The organizational development of the Armed Forces is organically linked to economic growth and to the outstanding scientific and technological achievements of the past 15 years.

Directing scientific and technological progress toward the public good, socialism reveals even more fully its creative possibilities and its profoundly human essence. Moreover, while imperialism continues to pose a threat of war, the unified military-technological policy followed by the Communist Party and the Soviet government has the aim of ensuring the development of arms and combat equipment for all services and branches in accordance with their role and purpose in modern warfare.

This policy takes into account the fact that scientific and technological progress leads to rapid model changes of weapons and combat equipment, and consequently entails more frequent replacement with newer models. For example, the time required to develop and issue a new model of a weapon has diminished by a factor of two or three since the turn of the century. The tendency of this time to diminish is becoming more and more distinct, despite the upward trends in cost and technical complexity.

An important aspect of contemporary scientific and technological progress is that such progress is not confined to the development of completely new combat equipment but extends to improvements in the performance of existing equipment by modernization.

Scientific and technological progress has intensified the competition between offensive and defensive means of combat. The advent of a new, more powerful offensive weapon requires the creation of adequate means of defense against it. And the more powerful the former, the more exacting are the requirements for the latter.

Taking into account the features of scientific and technological progress, its effect on military affairs, and the current changes in the equipment of the NATO armies, primarily the U.S. Army, the CPSU Central Committee and the Soviet government decided to broaden research and

development work to improve armament systems. Steps were taken to accelerate research work, proving-ground trials of new weapons, and troop familiarization with such weapons. Special attention was paid to the development of nuclear missiles, which in the hands of the Soviet state constitute a powerful defensive means of holding an aggressor in check.

When the U.S. began a new round of the arms race, the USSR conducted a number of tests involving improved missile technology. Noting the successes in missile design, in July 1965 L. I. Brezhnev said, "We are satisfied with our missiles. Their high reliability and their readiness for prompt launching are the result of their technical excellence."²²

Further trials showed that Soviet strategic missiles are noted for long range and great accuracy, and that they can carry multiple warheads.

In their policy, the CPSU and the Soviet government consider that the state of contemporary science and technology permits even more advanced and lethal weapons and combat equipment to be developed. For example, there have been reports in the foreign press that the U.S. has experimental and production models of lasers intended for reconnaissance and battlefield observation, high-precision range finding, fire control, navigation, communications, and action against personnel and equipment. Western military specialists expect to see further development of lasers for military purposes within the next few years. It is claimed that laser-equipped troops will have considerably greater capability against both air and ground targets.

Much is said in the foreign press about U.S. development of various space systems intended to raise the efficiency of combat actions conducted by existing types of armed forces, primarily strategic nuclear forces. These systems include those for reconnaissance, early warning of missile launchings, monitoring of nuclear strikes, global communications, navigation, and geodesic and meteorological support.

According to the foreign press, a new weapon of mass destruction under development is the "geophysical weapon." It uses natural forces for military purposes by acting artificially on the earth's lithosphere, hydrosphere, and atmosphere to wage a so-called "weather war." At the end of the sixties, there were indications that the U.S. was trying to use certain natural processes for military purposes in Vietnam.

Pursuing a peaceful policy, the Soviet government has repeatedly made proposals that the use of nuclear energy, the environment, and outer space for military purposes be prohibited, that force not be used in international relations, and so on. Owing to its efforts, a treaty on principles governing the activities of states in the exploration and use of outer space, including the moon and other celestial bodies, was concluded in January 1967. This

treaty was signed by the governments of the USSR, the U.S., and England. It is open for signing by any other country or countries. This treaty prohibits putting objects with nuclear weapons into terrestrial orbit. An agreement on cooperation in the exploration and use of outer space for peaceful purposes was concluded between the USSR and the U.S. in May 1977.

However, in the opinion of foreign specialists the existence of this treaty does not prevent the development of weapons to mount attacks from outer space. Therefore, with regard to its own security, the Soviet government cannot afford to ignore the main trends in the development of space facilities abroad, nor the possibility of their being used for military purposes.

An international agreement on the prohibition of military or any other hostile use of modification techniques on the environment was signed by 33 states, including the USSR and the U.S., in May 1977. The agreement is open to participation by any other countries. The signing of this important document testifies to the Soviet Union's untiring effort to prevent the arms race from proceeding along new and, at times, unforeseen channels created by the advance of science and technology.

At the present stage of military development, modernization of conventional weapons continues. The main trend in the improvement of such weapons is to better their performance in combat by broadening the range of missions to be accomplished and by increasing their range, power, accuracy, mobility, survivability, and reliability. As a result, there is constant improvement in personnel equipment.

There has been considerable improvement in the armament system used by the Ground Forces, whose firepower is now based on operational-tactical and tactical missiles capable of striking objectives up to several hundred kilometers away. Trends in the improvement of the Ground Forces' missile technology have been to reduce weight and overall dimensions, to improve maneuverability, to increase range and accuracy, to provide better means of control, and to improve the operating specifications.

Tanks occupy an important place in the Ground Forces' armament system. This is due in no small degree to the fact that their thick armor makes them the most resistant to the impact of a shock wave, and also sharply reduces the seriousness of crew injuries from penetrating radiation.

Improvement of tanks has been accomplished by modernizing existing types to increase their fighting efficiency, and by designing new models with greater firepower, survivability, and maneuverability.

At the same time, it should be mentioned that the opinion has been expressed abroad that armor has had its day, since antitank weapons are now so effective that it has become much more feasible to combat tanks on the battlefield. However, analysis of combat actions during Israel's aggression in the Middle East, and during local wars elsewhere, refutes this view and confirms the need for highly mobile and powerfully armed tanks.

Tank development should be accompanied by intensive development of the entire complex of armament and combat equipment intended to act in coordination with tanks. Thus, under contemporary conditions the tank's main "partner" is becoming the infantry combat vehicle. This vehicle, according to experience gained in maneuvers and training exercises, possesses good fighting qualities, permitting our motorized riflemen, behind armor, to engage the enemy while on the move, to negotiate contaminated terrain, to promptly exploit the results of nuclear bursts, and so on.

The development of armor has created a need for further improvement in antitank armament. The hand-held antitank rocket launcher is now widespread, having become the most popular weapon for engaging tanks in close combat. An effective antitank weapon is the antitank guided missile. The most characteristic trend in the refinement of this weapon is to mount it on a highly mobile combat vehicle with good armor protection.

The development of artillery and mortars is progressing. In antitank artillery, gun design has been improved, and the muzzle velocity and armor-piercing capability of the projectiles have been increased. Personnel have been issued updated models of gun and howitzer artillery as well as mortars with greater mobility, maneuverability, and range.

Rocket artillery, a powerful means of hitting group targets, is gaining in importance and relative numbers. Characteristic of modern rocket artillery are a large number of launching rails per unit, close grouping of the salvo, and a high rate of fire. Such artillery has increased range, great accuracy, and a powerful salvo, which permits prompt destruction of targets.

Self-propelled artillery is in wide use. Its mobility and protection are increased by installing the artillery system on the chassis of an armored vehicle with high cross-country capability. In contrast to World War II and to the first postwar years, modern self-propelled artillery does not supplement tanks numerically, nor does it duplicate them; it performs the same missions as field artillery of the same caliber, mainly delivering fire from concealed positions. Most characteristic of these weapons are greater firepower, greater mobility, greater radius of action, lower weight,

transportability by air, amphibious capability, and standardization of units and assemblies.

Small arms continue to play an important role in conducting combat actions. There are considerably fewer types of small arms than in the first postwar years. Current small arms are distinguished by increased firepower, great versatility, simplicity of construction, and reliability in combat use.

The air defense facilities of the Ground Forces have become more reliable and more efficient. They include new missile complexes of various types, self-propelled artillery, radar, and automated command and control systems. The air defense facilities are equipped with self-contained radar and computers, thus ensuring effective fire in all situations.

When the new air defense weapon complexes were being developed, special attention was paid to great mobility, all-weather operation, reliability of the target acquisition, identification, and destruction processes, minimization of the time taken to prepare to open fire, and ability to hit enemy aircraft at any altitude.

The changes in the nature of combat actions and in the methods of conducting them, together with the greater mobility of the Ground Forces, have required wide use of combat and transport helicopters in battle. Equipping helicopters with rapid-fire cannon, antitank guided missiles, machine guns, and bombs makes them a powerful, maneuverable weapon, which significantly increases the capabilities of ground forces in combat actions.

The increasingly arduous missions assigned to airborne troops have made it necessary to provide them with more powerful weapons and diverse combat equipment. They are equipped with air-portable self-propelled artillery, rocket artillery, antitank and air defense weapons, armored personnel carriers, combat vehicles, automatic small arms, and so forth. Present-day airborne assault technology permits assault troops and equipment to be dropped in any weather, on any terrain, day or night, and from any altitude.

The equipping of special troops, of chemical, engineer, and signal troops in particular, has changed substantially. The last of these, for example, are now equipped with mobile, highly reliable radios, radio-relay equipment, tropospheric stations, television and facsimile equipment, high-frequency telephone and telegraph equipment, mobile communications facilities, and so forth.

The main trend in improving command and control is in the comprehensive automation of command and control elements and weapons through

the extensive use of computers and other diverse electronics, that is, toward the creation of automated command and control systems.

The National Air Defense Forces are equipped with highly effective missile complexes, supersonic fighter-interceptors, and radar intended for rapid detection and continuous tracking of enemy aircraft.

The missile complexes possess great firepower and, regardless of the weather or the time of day or night, are always combat-ready and capable of striking a target even when it employs evasive maneuvers and jamming. The aviation units of the National Air Defense forces are equipped with first-class missile-armed fighters acting in close contact with the personnel manning the air defense missile complexes. Radar units are capable of quickly providing the command with the data needed for combat.

The Soviet Air Force has multirole fighters, all-weather supersonic fighter-interceptors, supersonic fighter-bombers, and tactical and long-range bombers. Aircrews have received variable-geometry supersonic aircraft, which not only have better landing and takeoff properties but also have extended flight duration at subsonic speeds. Vertical takeoff and landing aircraft were demonstrated for the first time in an air display at Domodedovo in July 1967.

Exemplary evidence of the high quality of Soviet aircraft is provided by the fact that in October 1967 test pilots A. V. Fedotov, P. M. Ostapenko, and M. M. Komarov, flying a series-produced, single-seater, Mikoyan-designed aircraft carrying 2 tons of freight, set a world record for altitude (30,000 m) and two world records for average speed on a closed circuit (2,910 and 2,930 km/h).²³

A noteworthy addition to Soviet military transport aviation was the giant An-22 ("Antey"). On 26 October 1967, an An-22 flown by test pilot I. Ye. Davydov and his crew and loaded with 100 tons of cargo climbed to an altitude of 7,800 m.²⁴ This demonstrated that all types of combat equipment, including heavy tanks and missile systems, could be transported by air.

On the whole, Soviet military aviation has become a jet-powered, supersonic, missile-armed, all-weather air force. Combat aircraft are equipped with powerful weapons, electronic navigation and aiming equipment, and automated means of control. Many Soviet aircraft are without equal in the world in speed, range, and ceiling. They are capable of flying great distances nonstop, and can take off and land within the confines of a small airfield.

Profound changes have taken place in the Soviet Navy. The main trends in its qualitative transformation have included the transition to construc-

tion of a fleet of nuclear submarines, the introduction of missiles and nuclear weapons, the creation of strategic nuclear submarine missile systems, the advent of long-range naval aircraft, the introduction of shipborne aircraft, advanced electronics, automated fire-control systems, combat equipment, and so forth.

Soviet nuclear submarines are modern first-class combat vessels, capable of accomplishing a wide variety of missions in any ocean. Their great available power permits them to make long runs at high speeds, while their powerful nuclear missiles enable them to undertake large-scale combat actions. Our nuclear submarines have become a part of the country's strategic nuclear forces.

The excellent fighting qualities of our nuclear submarines have been proven in many exercises and long cruises. Soviet submariners have reached the North Pole more than once, and during February and March of 1966 a detachment of Soviet nuclear submarines circumnavigated the globe without surfacing, thus performing a feat unprecedented in history.²⁵

Modern surface warships differ greatly from those of the forties and fifties in design, armament, and machinery. The surface fleet includes anti-submarine ships, missile ships and missile boats, and various landing vessels of special construction.

Jet aircraft capable of carrying long-range missiles great distances are now standard equipment in naval aviation, which has also been provided with modern antisubmarine aircraft.

Our marines have been issued the diverse armament and combat equipment needed to accomplish missions when making amphibious landings on an unprepared coastline.

Scientific and technological progress has made possible the construction of entirely new types of vessels: the hydrofoil, hovercraft, and so forth. The hovercraft, supported by an air cushion, is able to move over land or water, freely passing from one to the other, as well as through shallow-water areas. Possessing these properties, the hovercraft promises to find wide military application.

The missile arms race, started by the U.S. in the sixties, put the USSR in the position of having to create an antimissile defense. This system became an important factor in disrupting imperialist plans for a surprise missile attack, and was intended exclusively for defense against possible aggression. Emphasizing this position, A. N. Kosygin pointed out to foreign journalists in June 1967 that ". . . this system is not a means of aggression or attack, but is a means of protection against attack. . . ."²⁶

Thus, owing to the correctness of the Communist Party's military technological policy, to the outstanding achievements of science, technology, and the national economy, and to the selfless toil of those employed in industry, the past 10 to 15 years have seen the development of 2 to 3 generations of missiles, the replacement of a considerable number of combat aircraft, surface warships, and submarines, and the introduction of improved conventional weapons, weapon systems, radar, communications equipment, and so on. Implementation of these measures was dictated by the need to further increase the defensive capability of the USSR.

The policy of the party and government in strengthening the Soviet Armed Forces and improving their equipment inventory was intended to prevent U.S. preeminence in strategic arms, and was caused by the growth of offensive systems in the capitalist world. The Soviet Union, adhering to the principle of equality and equal security for both sides, has created and is creating new weapons and combat equipment concomitantly with strict observance of its international obligations.

The Soviet state's military technological policy has the approval and full support of the entire Soviet nation. At a reception given at the Kremlin in June 1976 in honor of the students graduating from Soviet military academies, Minister of Defense of the USSR, Marshal of the Soviet Union D. F. Ustinov said, "The Soviet people do not begrudge the resources needed to provide the Armed Forces with formidable weapons and combat equipment. They nurture a fervent love for their army, and they are sure that it will not fail to safeguard their socialist achievements."''

Underlying the qualitative changes in equipping the Armed Forces is the widespread introduction of nuclear weapons. At the same time, conventional weapons have been modernized, with a considerable improvement in their combat capabilities. All this has caused profound changes in the organizational structure of the Soviet Armed Forces.

3. Further Development of the Armed Forces' Organizational Structure

Under present conditions, the development of the Armed Forces' organizational structure is a process whereby the most rational combination of men and equipment in a single fighting organism is sought in a scientific manner. Soviet military science plays a leading role in this search by its assessment of the nature, development, scale, and duration of a modern war. Soviet military science considers that if the imperialist aggressors unleash a war, it will be characterized by vigorous, decisive actions that are coordinated as to target, time, and place, and are performed by all services and branches, each of which, while performing its own missions, will strive to ensure that the common goals of the war are attained.

Scientific and technological progress is having a strong impact on the Armed Forces' organizational structure. The great advance in weapons refinement has had a market effect on the development of the services and branches, on the definition of their roles, relative importance, and places in the military organization of the Soviet state, and on the establishment of the most advantageous correlation of forces.

The general policy on strengthening national defense and developing the Armed Forces is determined by the Communist Party, its Central Committee, and the Politburo. According to the Constitution, the direction of all the Armed Forces of the USSR is vested in the highest organ of state authority: the Supreme Soviet. The Presidium of the Supreme Soviet organizes the Defense Council and determines its membership; appoints and replaces top-ranking officers in the Armed Forces; declares a state of martial law, local or nationwide, in the interest of national security; announces general or partial mobilization; when the Supreme Soviet is not in session, declares a state of war in the event of an armed attack on the USSR, or to meet international treaty obligations for mutual defense against aggression.

An important role in the organizational development of the Soviet Armed Forces is played by the Defense Council. It is headed by General Secretary of the CPSU Central Committee, Marshal of the Soviet Union L. I. Brezhnev, who is also chairman of the Presidium of the Supreme Soviet. L. I. Brezhnev is making a great contribution to the organizational development of the Soviet Armed Forces.

The Council of Ministers takes steps to ensure state security, gives overall guidance for the development of the Armed Forces, and defines the annual contingent of citizens subject to call-up for active military service. It directs the work of the Ministry of Defense, whose principal tasks and functions are laid down in the "General Statute on the Ministries of the USSR," ratified by a Council of Ministers resolution dated 10 July 1967. From April 1967 the Ministry of Defense was headed by Marshal A. A. Grechko, and since April 1976 it has been headed by Marshal of the Soviet Union D. F. Ustinov.

The Ministry of Defense directs the Armed Forces through the General Staff and the main and central directorates. From 1963 through 1976 the post of chief of the General Staff was filled by Marshal S. S. Biryuzov, Marshal M. V. Zakharov, and General of the Army V. G. Kulikov, and since January 1977 the incumbent has been Marshal of the Soviet Union N. V. Ogarkov. The chief of the General Staff also holds the post of first deputy minister of defense.

Party-political work in the Armed Forces is directed by the CPSU Central Committee through the Main Political Directorate of the Soviet Army

and Navy, which has the status of a Central Committee department. Since May 1962, this directorate has been headed by General of the Army A. A. Yepishev.

At present, the Armed Forces of the USSR include the Strategic Missile Forces, the Ground Forces, the National Air Defense Forces, the Air Force, the Navy, the Rear Services of the Armed Forces, the staffs and units of Civil Defense, the Border Troops, and the Internal Troops.

Each of these structural elements of the Soviet Armed Forces is headed by a commander in chief who directs the combat and political training of the troops, and their indoctrination, through his staff and the appropriate directorate or department. In the services, military districts, groups of forces, air defense districts, fleets, flotillas, armies, border troop and internal security troop detachments there are military councils. Party-political work in the field and afloat is organized by the appropriate political organs.

In guiding the organizational development of the Armed Forces, the Communist Party is acutely aware of the need for harmonious and proportional development of all services and branches, and considers their role and mission in armed conflict. Special attention is paid to ensure that the troops and naval personnel equipped with nuclear weapons are trained to perfection. Behind the power of the Soviet Union's strategic forces are land-based intercontinental ballistic missiles, long-range bombers, and nuclear submarines. As L. I. Brezhnev said, "We have created strategic forces that are a reliable means of holding any aggressor in check."

Underlying the fighting strength of the Soviet Army and Navy are the Strategic Missile Forces. Their role is to accomplish strategic missions in nuclear warfare. Equipped with automated complexes capable of launching intercontinental and medium-range missiles, the Strategic Missile Forces can deliver nuclear warheads of immense destructive power to a target with a high degree of precision.

The leading role of the Strategic Missile Forces in the Armed Forces of the USSR is also determined by their high combat potential. The Strategic Missile Forces are the principal and decisive means of achieving the goals of a war, as they can promptly undermine an aggressor's military and economic potential, annihilate his strategic means of nuclear attack, and destroy his main military groupings.

The organizational structure of the Strategic Missile Forces is being improved by a change in their scope and missions and by the introduction of new missile technology and means of control. These forces are constantly on alert duty and are always ready to deal an aggressor a retaliatory blow.

Beginning in March 1963, the commander in chief of the Strategic Missile Forces was Marshal N. I. Krylov. Since 1972, this post has been occupied by General of the Army V. F. Tolubko.

There have been radical changes in the Soviet Ground Forces, the largest service in numerical strength and the one most diversified in arms. The Ground Forces possess great firepower and striking power, as well as high maneuverability and self-sufficiency.

The Ground Forces of the Soviet Armed Forces consist of branches, special troops, and rear services establishments. The principal branches are the motorized rifle, tank, missile troops and artillery, and air defense.

Operational and tactical missile units constitute the basis of the Ground Forces' firepower. These units can strike, with a high degree of accuracy, enemy installations or other targets located as far as several hundred kilometers away. The provision of new weapons systems and advanced combat equipment to artillery and missile units has been attended by corresponding changes in their organizational structure.

Motorized rifle troops have the greatest numerical strength of any branch of the Ground Forces. Their firepower and striking power are based on missiles, artillery, and armored combat vehicles; as a result, there has been a sharp increase in the firepower, mobility, maneuverability, and armor protection of motorized rifle formations and units. For example, a motorized rifle division at the end of the sixties surpassed its 1939 counterpart in tanks, automatic weapons, radio sets, armored personnel carriers, and power per unit by factors of 16, 13, 5, 37, and 10, respectively. The artillery and mortar salvo of such a division (not counting nuclear weapons) exceeded that of its prewar counterpart by a factor of 30.

As formerly, tanks are the main striking force of the Ground Forces. High mobility, much firepower, great striking power, and heavy armor make this branch the most effective means of conducting combat actions in any situation. The authorized organizational structure of tank formations and units has been developed to increase their combat capability, maneuverability, mobility, and tactical self-sufficiency in the performance of diverse combat missions.

The role of the Ground Forces' air defense troops is to cover groupings against air attack. These troops, either independently or in coordinated action with their counterparts from the other services, can destroy the enemy's aircraft and unmanned means of air attack, can engage his airborne forces either in transit or as they are dropped, and can conduct radar reconnaissance and warn personnel of impending air attacks.

As air defense units are issued new missile and artillery systems and other advanced combat equipment, their authorized organizational structure is being improved and their combat capability is increasing.

Besides being provided with more modern arms and combat equipment, airborne troops have had their organization improved at the unit and formation levels. As a result, their combat capability has improved considerably, as has their mobility on the battlefield. The role and relative importance of airborne troops have grown, and their tasks have changed considerably and even include independent operational missions in the enemy's deep rear, far from the main ground-force grouping. Airborne troops have become a means of engaging the enemy simultaneously throughout the entire depth of a theater of operations.

As a result of improved organization, engineer, chemical, and other special troops show a sharp improvement in their ability to support Ground Forces actions.

A characteristic feature of the organizational development of the Ground Forces is the quest for more unit and formation mobility and maneuverability concomitantly with increased firepower and striking power, as well as the development of the branches and types of weapons and combat equipment most closely in accord with the character and demands of modern warfare.

The direction of our Ground Forces is vested in their commander in chief. Since 1967, this post has been occupied by General of the Army I. G. Pavlovskiy.

As means of air attack and air defense have become more advanced, so the organizational structure of the National Air Defense forces has been improved. As air defense missions have become more complex and as performance requirements have become more exacting, the role and importance of the National Air Defense Forces within the Soviet Armed Forces have grown.

The National Air Defense Forces depend, for their firepower, on air defense missile troops and on missile-armed fighter aircrews. These crews in turn depend on the radar troops who perform the missions of the reconnaissance information plan. Of the utmost importance in air defense are the command posts and the automated command and control systems, which shorten the time taken to pass information, significantly improve its accuracy, and permit the optimal combat decision to be made with minimal delay.

After the National Air Defense Forces' missile troops, aviation, and radar troops had been equipped with modern arms and combat equip-

ment, and when organizational improvements had been made, the capability of air defense units and formations rose sharply, especially when engaging enemy aircraft in bad weather and at night.

The National Air Defense Forces are in a state of constant combat readiness and are capable of quickly carrying out crucial combat missions to protect the population, the country's administrative, political, and economic centers, and groupings of the Armed Forces from enemy air attack.

In recognition of the meritorious services rendered by the National Air Defense Forces during the Great Patriotic War, and for accomplishing especially important missions in peacetime, the Presidium of the USSR Supreme Soviet issued an edict dated 20 February 1975 establishing an annual National Air Defense Forces Day on the second Sunday in April.

In 1962, Marshal of Aviation V. A. Sudets was appointed commander in chief of the National Air Defense Forces. Since 1966, this post has been occupied by Marshal of the Soviet Union P. F. Batitskiy.

Significant qualitative changes have taken place in the Soviet Air Force. This is attributable to the fact that all its branches have been provided with first-class combat aircraft and equipment. The organization of all air units and formations has been improved. As a result, there has been a great advance in the combat capability of the Soviet Air Force as a whole.

Units and formations equipped with supersonic, long-range, missile-armed aircraft and large payload capacity bombers constitute the basis of the Soviet Air Force's strength. Missiles of various types, including those with nuclear warheads, make it possible to attack the enemy's installations without entering the zone covered by his air defenses.

The relative importance of Frontal Aviation is great. Because its units and formations are equipped with modern aircraft capable of using various classes of missiles and aerial bombs with nuclear or conventional warheads, Frontal Aviation can perform a wide range of missions in providing air cover and support for Ground Forces groupings.

Now that units of Military Transport Aviation are equipped with aircraft that can carry large payloads, combined arms units and formations can be airlifted in their entirety.

The Soviet Air Force's great mobility and maneuverability allow it to shift air power rapidly from one sector or theater of operations to another; penetrate the enemy's deep rear and attack his installations; use various weapons and diverse electronic equipment at any time, in any season, and in all weather; and make surprise air attacks on large static and small

mobile targets. The Soviet Air Force has become a powerful service in the Armed Forces of the USSR and is capable of exerting a strong influence on the course and outcome of military operations.

Since 1969, Chief Marshal of Aviation P. S. Kutakhov has been commander in chief of the Soviet Air Force.

The Soviet Navy is capable of resisting aggression from the sea and of accomplishing formidable operational and strategic missions in ocean and coastal theaters of operations. It has emerged from coastal waters and inland seas, and has mastered the expanses of the open ocean. The Soviet Navy is a balanced system of various branches, including submarines, surface ships, naval aviation, coastal missile troops, marines, and various special services. The principal branches of the Soviet Navy are submarines and naval aviation, which are armed with missiles of various classes for diverse purposes.

Due to the extensive introduction of modern weapons, combat equipment, and electronics, to the advent of nuclear power for submarine propulsion, and to improvements in organizational structure, there has been a sharp increase in the combat capabilities of all branches of the Soviet Navy, which has become an oceangoing, nuclear missile-armed fleet. Scientific and technological progress in naval shipbuilding and an objective analysis of the missions to be accomplished by the fleet have made it possible to establish the optimal composition of the Soviet Navy's varied forces and facilities.

Submarines, which constitute one of the Soviet Navy's main branches, are constantly being improved. A feature of this branch is that in addition to submarines armed with strategic missiles, it has others armed with various missiles and long-range torpedoes.

Modern means of armed conflict have added completely new qualities to surface-ship formations, broadening their capabilities in the use of long-range missiles, artillery, and torpedoes. New construction has included antisubmarine cruisers of the Moskva, Leningrad, and Kiev classes. Possessing excellent seakeeping qualities and maneuverability, these ships are equipped with jet-powered helicopters, other modern means of anti-submarine warfare, and guided missiles for air defense.

Organizationally, the Soviet Navy consists of the Northern, Pacific, Black Sea, and Baltic fleets, the Caspian Flotilla, and the Leningrad Naval Base. The Northern Fleet, the Pacific Fleet, the Black Sea Fleet, the Caspian Flotilla, and the Leningrad Naval Base have been awarded the Order of the Red Banner, which has twice been conferred on the Baltic Fleet. The Soviet Navy is headed by its commander in chief, to whom the main naval staff and the central naval directorates are subordinated.

The emergence of the Soviet Navy as an oceangoing fleet armed with nuclear missiles has brought profound changes of opinion on its role in the Soviet Armed Forces and its mode of employment. Its relative importance in comparison with the other services has risen considerably. The Soviet Navy befits the status of the USSR as a great sea power. It is an important factor in stabilizing the situation in various parts of the world by promoting peace and friendship between nations, and in holding the aggressive aspirations of imperialist states in check.

The Rear Services of the Soviet Armed Forces are subject to continuous improvement under the impact of military technological progress. Characteristic of the contemporary Rear Services is a high degree of motorization and mechanization, mobility and maneuverability.

The Rear Services of the Armed Forces of the USSR include arsenals, bases, and depots containing stocks of material. The Rear Services have special troops (in the automotive, railroad, pipeline, airfield-engineering, and other categories), as well as units for maintenance, medical, and security purposes.

To enable the Rear Services to meet their new commitments, and in consideration of the features of the combat utilization of each service and branch of the Armed Forces, the rear elements, the system and principles of rear services support, and the organization of operational rear services and troop rear units have been further developed.

Changes have taken place in the direction of the Soviet Rear Services. In 1962, the powers of the chief of Rear Services for the Ministry of Defense were broadened, and since that time the incumbent of that post has been called deputy minister of defense and chief of Rear Services of the Armed Forces. To improve direction in units, formations, and strategic formations, the post of chief of Rear Services in such entities was renamed deputy commander for Rear Services.

From 1968 to 1972, the post of deputy minister of defense and chief of Rear Services of the Armed Forces was occupied by General S. S. Maryakhin, who was then succeeded by General of the Army S. K. Kurkotkin.

In modern warfare, it is of the utmost importance to safeguard cities, industrial sites, and the population at large against weapons of mass destruction and other means of air attack employed by the enemy. Owing to the concern of the Communist Party and the Soviet government, appropriate action is being taken to strengthen the country's Civil Defense.

The direction of Civil Defense is entrusted to special command and control elements. The Civil Defense Force consists of military units, non-

militarized formations, and various establishments (medical, municipal, and so forth) requisitioned to perform special tasks.

The Border Troops are a component of the Soviet Armed Forces. They are directed, through a military council, a main directorate, and a political directorate, by the chairman of the Committee for State Security under the USSR Council of Ministers. This post is held by General of the Army Yu. V. Andropov, member of the CPSU Central Committee Politburo.

To ensure the inviolability of Soviet borders, the organizational structure of the Border Troops has been improved, and the adequacy of their logistic support is constantly under review. The Border Troops are provided with the latest weapons, combat equipment, and special equipment.

Owing to the extensive introduction of modern patrol vessels and launches, fixed-wing and rotary-wing aircraft, armored personnel carriers, and motor vehicles, the Border Troops have improved in combat capability and mobility. A more effective distribution of Border Troops along the state border has been achieved.

In view of the considerable expansion of the Soviet government's international ties and contacts, the authorized points of entry monitored by the Border Troops have been strengthened organizationally and technically, as these points constitute a screen preventing the enemy's agents and ideological diversionists from entering the country.

To improve the direction of the Border Troops, the creation of military councils in border districts was authorized by a 3 October 1963 resolution of the CPSU Central Committee and USSR Council of Ministers. A military council for the Border Troops was formed in 1969.

Statutory documentation has been formulated to permit the guarding of our borders and the combat and political training of the Border Troops to meet contemporary demands.

The Border Troops count greatly on assistance from local inhabitants, who are organized into voluntary militia patrols. The Border Troops also depend upon guidance from local party and soviet organs in border regions.

The Internal Troops have undergone a substantial reorganization. During the latter half of the sixties, the organizational structure and command and control system that had proven most advantageous for the accomplishment of their specific missions continued to be refined. The organization, command and control system, party-political work, and training and indoctrination of personnel are based on Soviet Army principles. The direction of Internal Troops is carried out by the minister of internal

affairs of the USSR through the Main Directorate for Internal Troops in the Ministry of Internal Affairs. A military council for Internal Troops has been created. The minister of internal affairs of the USSR is General of the Army N. A. Shchelokov.

Thus, improved armament and reorganization have brought profound qualitative changes in the Soviet Armed Forces and have resulted in further growth in their striking power and firepower. All elements constituting the Armed Forces of the USSR have developed in a planned and balanced manner, and have constantly been in the most advantageous combination. The contemporary Soviet Armed Forces are technologically and organizationally capable of accomplishing tactical-operational and strategic missions on any scale and in any combat situation.

4. Armed Forces Cadres. The Growth in the Role of Party-Political Work Among the Troops

As the scientific and technological revolution proceeds, military equipment, organizational structure, and methods of conducting combat operations continue to be improved. Further specialization of military service is taking place, as evidenced by the advent of many narrow technical and engineering specialties that are exceedingly complex and require a high level of professional training.

Under the influence of profound sociopolitical, spiritual, and cultural changes in Soviet society, the level of general and technical education attained by the youths drafted into the Armed Forces rises each year. The training and indoctrination of such a contingent makes greater demands on officers, but less time is required to turn the young servicemen into specialists.

Modern warfare, involving dynamic troop movements, abrupt changes in the situation, and the use of complex equipment, complicates command and control considerably. Profound qualitative shifts are taking place in the nature and content of military service: it is becoming more and more creative, requiring a high level of theoretical and methodological training.

In accordance with these and other qualitative changes in military affairs, a modern system for training and indoctrinating personnel is being built. Each generation of the officer corps witnesses, during its tenure of service, repeated renovation of weapons and combat equipment. This circumstance demands that personnel cultivate a sense for what is new, and calls for constant updating of professional knowledge and a broadening of general and technical interests.

The officer training system is structured so that the fundamentals of excellent leadership qualities and skills are implanted at a secondary or

higher military school, developed and strengthened in service, and broadened and deepened at a military academy. Special importance is attached to inculcating in those under instruction the ability to apply theoretical knowledge in practice and the faculty to skillfully train and indoctrinate subordinates.

During recent years measures have been taken to guarantee line officers admittance to military educational institutions. In military academies there has been an increased enrollment of officers who have shown their worth in posts such as battalion commander, naval commanding officer, and squadro leader, and of officers who have gained practical experience after graduating from a higher military school. The enrollment in military schools includes an appreciable number of Army and Navy warrant officers, noncommissioned officers, petty officers, soldiers, and sailors.

Special attention is being paid to raising the ideological, professional, and methodological training of the teaching faculty. Vacancies in the instructor staff are filled by the best line officers. Military educational institutions are kept in closer touch with the life and combat training of personnel.

Taking into consideration the increasingly exacting demands made on the officer corps, the Communist Party Central Committee and the Soviet government are paying constant attention to improving the training, selection, and indoctrination of senior officers, perfecting their work style, and reinforcing the principle of unity of command.

The routines, programs, and courses in military educational institutions have been refined. The number, scope, and variety of such institutions is constantly maintained in full accord with the needs of the troops and the requirements of military theory and practice. A number of new higher military educational institutions have been founded to train specialist officers for the Strategic Missile Forces, the submarine fleet, the Air Force, the National Air Defense Forces, and so on. Merely during 1965-70, the proportion of higher schools and academies in the overall system of military educational institutions increased by a factor of almost two.²⁴

At the present time, most Soviet Armed Forces schools are higher schools. Each year candidates are invited to apply for admission to numerous combined arms, tank, artillery, flying, air defense, naval, and military-political schools. Higher schools also train officers for the Strategic Missile Forces, special troops, Border Troops, and so forth.

The training of personnel in military educational institutions is organized with the daily activities of Army and Navy officers in mind. Such activities include daily work to maintain a high level of combat readiness in units or

on ships; purposeful military and ideopolitical indoctrination of subordinates; the supervision of political and combat training; the instruction of personnel under conditions of systematic renewal of armament and constant development of the art of war; and continuous refinement of the officers' political, operational-tactical, technical, and specialist knowledge.

The improvement of the military educational institution system and the increase in the number of higher institutions have had a positive effect on the education level of the officer corps. More than half of the command and supervisory officers in the Army and Navy have higher military and military-specialist education. Almost 100 percent of brigade commanders and above, more than 90 percent of regimental commanders, and 100 percent of naval officers commanding class 1 and 2 warships have higher military education.

The proportion of engineers and technical officers in the officer corps has increased greatly. Whereas it was 28 percent, on the average, in the middle of the fifties, it is now about 50 percent for the Soviet Army and Navy. For example, in the Strategic Missile Forces every second officer has an engineering background.

Political personnel have become stronger, and the level of their ideological, special, technical, and general education has risen. Whereas in 1955 only 56 percent of political workers in the Army and Navy had higher or secondary education, now all have. All political-section chiefs of formations have higher education, as do four-fifths of political workers in the regimental apparatus.¹⁰

A relentless replacement of officer personnel is taking place in the Armed Forces. At present more than 65 percent of regimental officers are under 30. Many officers born after the Great Patriotic War are now company commanders, battery commanders, squadron leaders, battalion commanders, or naval commanding officers.

The Communist Party is strictly guided by Lenin's principle on the selection and appointment of officers and the proper combination of experienced officers and young, energetic personnel. The replacement of the officer corps is an immutable law in the development of the Armed Forces.

A measure of national importance was the advent of the rank of warrant officer in 1972. This measure was designed to strengthen the officer corps of the Army and Navy, and was dictated by reality itself in the interest of improving the combat capability and combat readiness of the troops. Certain posts, formerly filled by noncommissioned officers, were filled by a qualitatively new category of line officers, who are well

educated, highly specialized, skilled in methodology, familiar with complex modern equipment, and prepared to devote themselves to service life for an extended period.

A special school system has been set up for the initial training and subsequent retraining of warrant officers.

An all-armed forces conference of military and naval warrant officers was held in January 1973. On this occasion, the first experience of their work was summed up and generalized. The conference helped to broaden the role and authority of military and naval warrant officers, who are well established as line officers in the Soviet Army and Navy.

New tasks of increasing complexity in the organizational development of the Armed Forces demand from the officer corps a profound knowledge of Marxism-Leninism. Creative study of Marxist-Leninist theory and mastery of its methodology not only broaden one's political horizon but also help one to scientifically foresee the trend in the development of military affairs and to work with a sense of perspective. Such study ensures a truly scientific approach to the solution of practical problems in the training and indoctrination of servicemen.

Much has been done to improve the ideological and political indoctrination of the officer corps. Ideological work has been enriched by new forms and methods. Its effectiveness and role in the solution of political and combat training problems have increased noticeably. The interest shown by officers, including those of general and flag rank, in Lenin's legacy of military doctrine has grown considerably. Theoretical conferences on current problems in Marxist-Leninist theory, the party's domestic and foreign policy, and military organizational development have found solid application in active service situations. Command and supervisory personnel have increased their independent study of classic Marxist-Leninist works, program documents, and Communist Party decisions.

The entire training process has as its aim to develop in officers the qualities that fully meet the party's demands on personnel entrusted with the leadership of the Soviet state. As noted by L. I. Brezhnev at the 25th Party Congress, "A modern leader must combine in himself party spirit with profound competence, and discipline with initiative and a creative approach to affairs. Moreover, in any field a leader is obliged to consider the sociopolitical and indoctrinational aspects, and should be sympathetic to others, to their needs and requirements, setting an example at work and in private life."

The party's constant concern about the selection, assignment, and indoctrination of officers has had a beneficial effect on the quality of their leadership and on the training and indoctrination of servicemen. The com-

bat readiness of formations and units, in the field and afloat, has improved, as has the combat expertise of personnel. The number of outstanding servicemen completing combat and political training is increasing continuously, as is the number of teams, crews, and units with excellent ratings. Much of the credit for these achievements belongs to line officers, political workers, engineers, and technical officers.

In connection with further improvements in the nuclear weaponry with which the Soviet Armed Forces are armed, military science is confronted by formidable and crucial problems in research on the features of modern warfare and on the methods of organizing and conducting engagements and operations. After the October (1964) plenary session of the CPSU Central Committee, action was taken to correct certain mistaken views held in military research circles as a result of overestimating the capabilities of nuclear weapons, their effect on the nature of warfare, and their role in the further organizational development of the Armed Forces. The party directed the officer corps toward harmonious, balanced development of all services and branches, taking into account the actual distribution of forces on the world arena and the rapid advance of science and technology. The resolution "On the Further Development of the Social Sciences and the Broadening of Their Role in Building Communism," adopted by the CPSU Central Committee in 1967, played an important role in the improvement of military theoretical work.

In the Army and Navy there has been improvement in the exchange and generalization of experience gained in theoretical work. Creative ties between military research establishments, military educational institutions, and the troops have been strengthened. This has promoted common views on many questions of military science and has had a great effect on training and indoctrinating the officer corps and on strengthening the combat capability and combat readiness of the Armed Forces. As a result of an intense joint effort between generals, admirals, and other officers directly concerned with operational and combat training, and between the central apparatus and the military educational institutions, Soviet military science has made a great step forward in its inquiry into the objective laws of warfare and armed conflict, as well as in its treatment of fundamental questions on the theory and practice of the art of war and the principles underlying the organizational development of the Army and Navy.

Proceeding from the problems posed by the Communist Party and the Soviet government for the Armed Forces in protecting the interests of the Motherland and the countries of the socialist fraternity, Soviet military science has continued to devote much attention to disclosing and substantiating the character and special features of modern warfare. Under present conditions of social development, there is a possibility of averting war and of preserving peace between the states of the two social systems. Important factors in realizing such a prospect are the military power of the

Soviet Union and the socialist fraternity, the existence of a powerful political and military alliance (the Warsaw Pact), and the outstanding combat readiness of the Soviet Armed Forces.

At the same time, Soviet military theory cannot ignore the possibility of the outbreak of a destructive world war, whose causes would be rooted in the aggressive nature of imperialism. Another world war, if unleashed by the aggressors, would constitute a decisive collision between two antithetical systems—socialist and capitalist—and would involve not only the peoples of the warring sides but most countries of the world as well. The aggressive imperialist bloc would be opposed by a powerful coalition of socialist countries united by common political and military goals.

According to a report in the foreign press, two basic methods of unleashing a worldwide nuclear war underlie the theoretical studies and practical measures of the NATO countries. The first method is to mount a surprise unlimited nuclear attack. The second method is to begin the war without using nuclear weapons, subsequently escalating it into a war with limited use of nuclear weapons, and then into a worldwide nuclear war. Diverse variants of the nuclear attack are considered: a surprise nuclear strike begins the war; a surprise nuclear strike is mounted during operations in which only conventional weapons have previously been used; and a surprise mass use of nuclear weapons immediately follows limited use of tactical nuclear weapons.

During the postwar years there has been much talk in the West about unleashing a worldwide nuclear war by escalation. In this connection, all possible models have been formulated to simulate the gradual involvement of the world in a nuclear war. Much attention has been paid to local wars in which conventional weapons are used.

With the adoption of the Realistic Deterrent strategy, new views have been formulated in the U.S. on preparing for, waging, and classifying nuclear wars. According to the weapons used, the scale of operations, and the objectives, all nuclear conflicts are divided into three types: strategic (total) war, with unlimited use of the entire arsenal of nuclear weapons; war in a particular theater of operations, most likely Europe, in which the warring sides have recourse primarily to tactical nuclear weapons; and "limited" strategic war, in which nuclear weapons would be used only against military objectives. The possibility of a nonnuclear war is conceded.

A correct assessment of the features of modern warfare is of immense importance for implementing appropriate measures affecting the buildup of the Armed Forces, their preparedness to repel aggression, and their training and indoctrination as formulated in military doctrine. Characterizing the essential features of military doctrine and its significance for the organizational development of the Armed Forces,

Minister of Defense of the USSR, Marshal of the Soviet Union D. F. Ustinov said, "The Soviet state's peaceful foreign policy, together with its readiness to repulse an aggressor, is the basis of our military doctrine and underlies the organizational development and training of the Armed Forces."¹²

With the introduction of nuclear missiles, there was a fundamental change in opinions on how combat actions should be conducted and operations should be organized. In the training and instruction of the troops, consideration was taken that new weapons had widened the limits of warfare considerably and had increased the importance of the moral-political and psychological qualities of personnel. It was thought that massed nuclear attacks with strategic weapons could be inflicted throughout the entire territory of the belligerent states, and not merely in the theaters of operations. Specific applications of the services and branches in modern warfare were refined.

The Strategic Missile Forces, in coordinated action with the other services, are capable of accomplishing the main missions of a war quite rapidly. Accordingly, nuclear attacks now play a decisive role in achieving the goals of a war and are considered to be the principal means of strategic warfare.

The main mission of the Ground Forces, who are armed with operational-tactical and tactical nuclear weapons, has been to destroy the enemy's means of nuclear attack and other installations and to crush the remnants of his groupings. An essentially new feature of the Ground Forces is their fullest possible exploitation of the results of nuclear attacks for rapid accomplishment of their missions. The principal role in the achievement of the goals of an operation has been played by our operational-tactical missile forces and aviation, supported by tanks, motorized infantry, and airborne troops.

The training of personnel is based on the assumption that in modern warfare an offensive would be characterized by the absence of continuous fronts and linearity in troop actions. Military operations may develop simultaneously over great distances, frontally and in depth.

In combat training, shock groupings have been formed at a considerable distance from the front line. The troops have been taught to conduct an offensive in a number of separate sectors to split up an enemy grouping and defeat it piecemeal. However, in all cases the main effort of the advancing troops has been concentrated in the key sectors where massed nuclear attacks have been mounted. The zones of advance used by formations and strategic formations have become considerably wider than formerly, which has permitted wide maneuver with men and equipment.

Much attention has been paid to the use of maneuver in combat actions. This has been due to the great availability of tanks, motorized infantry combat vehicles, armored personnel carriers, and other highly mobile equipment. During an operation, great importance has been attached to tactical and operational airborne forces, frontal aviation, air defense forces, and special troops, as well as to the implementation of measures for protection against weapons of mass destruction.

In connection with the fundamental change in the nature of engagements and operations, abrupt and rapid changes in the situation are unavoidable. This has raised the importance of the self-sufficiency of units and formations, and of the initiative of commanders of all grades, and has demanded brave, even daring, troop actions, swift breakthroughs into the depth, and wide use of the flanking maneuver and envelopment.

Soviet officers and troops have been learning the art of organizing and conducting the defensive operations that could take place in a modern war. With the advent of contemporary means of armed conflict, the structuring of defense and the methods of conducting it have undergone radical changes. Defense is based on the use of nuclear weapons and on the mobile actions of formations and field forces. The troops occupy and prepare to defend isolated, highly important areas and positions scattered frontally and in depth. Engineer preparation of the terrain and the disposition of the troops safeguard personnel and combat equipment from weapons of mass destruction and enemy aircraft and ensure the stability of the defense against mass attacks by tanks and infantry.

Much attention has been paid to questions on protecting the territory of our country and groupings of our Armed Forces from enemy nuclear attacks. A major role in the solution of this problem is assigned to our National Air Defense Forces.

A vital necessity for our National Air Defense Forces was the creation of an impenetrable defense covering the country's rear installations and troop groupings. This could be done through vigorous action by our National Air Defense Forces using the latest means of combat. Protecting the Armed Forces and installations of national importance from enemy air attack has been made an independent category of combat action.

The detection and destruction of enemy aircraft by our air defense forces and facilities, whether in solitary or massed raids, are characterized by activity, continuity, and intensity. Under these conditions, it is especially important that command and supervisory personnel at all levels have a high level of professional training, moral-political indoctrination, and psychological preparation.

Soviet Air Force personnel have been confronted with extremely complex missions. Skillful use of first-class aviation technology and modern armament in combat would be unthinkable without a high level of professional training. The volume and complexity of the missions accomplished by aviation have increased greatly.

Great changes have taken place in the operational art of the Soviet Air Force and in the tactics of branches of aviation. In particular, the mission has arisen to deal decisively with the enemy's means of nuclear attack. Modern aircraft, equipped with various classes of missiles, bombs, and cannon armament, are capable of performing the dual role of locating the enemy's means of nuclear attack and destroying them promptly. Such aircraft are effective against small moving targets and can be used to disrupt the enemy's command and control, to destroy his aircraft, and so forth. Our aviation has begun to drop and support operational and tactical landing forces, to land airborne forces, to transport materiel, to evacuate the sick and wounded, and so on.

The complex and crucial tasks associated with the mastery of modern weapons and aircraft and with their use in combat make even more exacting demands on training and indoctrinating aviation specialists, particularly flying personnel. A large volume of knowledge has to be assimilated in a short time. This has required further improvement in the training system for Soviet Air Force officers, and in the methods and forms of instruction and indoctrination used, so that command and supervisory personnel will possess high political, administrative, moral, psychological, and physical qualities as well as the necessary combat expertise.

Profound changes have taken place in opinions on the role of the Soviet Navy in the Soviet Armed Forces and on the ways it should be employed. The Soviet Navy has become an extremely important strategic arm, capable of striking targets at sea or on land, including, in the latter case, both coastal targets and installations in the enemy's deep rear. The Soviet Navy can exert a very significant, and at times decisive, influence on the course of a war.

The main purpose of military operations in maritime theaters is to defeat the enemy's naval groupings, to disrupt his sea communications, to protect one's own communications, and to defend one's own coastline from seaward attacks.

Modern trends in naval warfare, including the growth of combat missions in number and content, the global scale of hostilities on the high seas, and the increased complexity of naval actions, make greater demands on naval personnel, especially commanding officers of naval vessels. The system whereby officers are trained for the fleet, and the methods and

forms of instruction and indoctrination, must ensure the production of skilled personnel and first-class specialists in military affairs.

The troops of the Rear Services of the Armed Forces are confronted with extremely important and complex problems. The solution of these problems is inseparable from the quest for the most rational methods of providing the troops with shelter and personal services, medical support, and everything needed to conduct combat actions under the conditions of modern warfare.

The combat training of Rear Services personnel is constantly being improved; and the maneuverability and mobility of all facilities have risen sharply. Mechanization of the supply processes has increased, and medical and other support for the troops is improving. The management of the rear has reached a new level, the most effective rear support procedures are being developed, and operational rear services and troop rear units are becoming better organized. All of this constantly calls for better personnel training and indoctrination.

Thus, further development of the weapons and combat equipment of the Soviet Armed Forces and improvement of their organization have brought new qualitative changes in the methods of waging armed conflict and in the training and indoctrination of personnel. The need for combat readiness on the part of the Soviet Armed Forces is greater than ever.

The more complex missions assigned under contemporary conditions to safeguard our country against possible aggression have made it necessary to strengthen Civil Defense in the USSR. It is especially important, with regard to the difficult situation that would prevail in a nuclear war, to prepare the population for organized activities such as extinguishing fires over large areas, controlling floods, rendering large-scale medical aid to casualties, clearing obstacles and building roads, restoring electric power networks and water mains rapidly, getting disrupted production going again, and restoring administration. Civil Defense has emerged as an important factor in ensuring the viability of the state, and is characterized by organization and planning.

The theoretical tenets and practical recommendations on the performance of a serviceman's functional duties and the conduct of military operations are to be found in the regulations and manuals issued for the guidance of the troops. The theoretical knowledge acquired by personnel is consolidated during combat training with weapons, in practical instruction during drills, in the servicing of equipment, and so on.

The highest form of instruction and indoctrination, and the most important means of raising the state of training in the field, afloat, and in the air, are troop exercises and maneuvers. They are of immense impor-

tance in training troops for actions under the adverse conditions of modern warfare. During exercises, cruises, and flights, servicemen sharpen their combat expertise and acquire solid skills and the ability to conduct vigorous and decisive combat actions. At the same time, command personnel refine their skills in command and control.

During the sixties and seventies, life and combat training in the Soviet Armed Forces have been filled with events that have had a stimulating effect on the theoretical and practical seasoning of the officers and on the combat readiness of the troops. Such events included the following exercises and maneuvers: "Dnepr" (1967), "Dvina" (1970), "Okean" (1970), "South" (1971), "Kavkaz" (1976), "North" (1976), "Karpaty" (1977), and others. Soviet servicemen also participated in exercises conducted jointly with the Warsaw Pact armies of the socialist countries. The largest of these exercises were "October Storm" (1965), "Vltava" (1966), "Rhodope" (1967), "Oder-Neisse" (1969), "Brotherhood-in-Arms" (1970), "Shield-72," "Shield-76," and others. The exercises and maneuvers constituted convincing evidence of the increased potentialities of all services and branches and demonstrated the expertise and high combat capability of personnel. Units, formations, and crews accomplished the most complex missions in all situations.

The constant readiness of the Soviet Armed Forces to repel an aggressor has by virtue of its historic importance transcended strictly military bounds and has acquired profound political significance. This readiness is an extremely important factor in preserving peace and preventing war, thus ensuring favorable conditions for building socialism and communism. At the same time, this readiness has become one of the main indices of the state and level of the political and combat training of personnel and of the correspondence of this training to the troops' highly technical equipment and new organization. ". . . The combat readiness of our troops," said L. I. Brezhnev, "may be likened to a focal point on which our nation's huge efforts and expenditures for national defense are concentrated, together with the conscientiousness, expertise, and discipline of all servicemen, the officers' faculty for command and control, and much else. Readiness is, in the end, the pinnacle of military accomplishment in peacetime and the key to victory in war.'"

The qualitative changes in armament and combat equipment, the acceleration of their renovation, the higher technological level of equipment for the troops, and the new demands for their combat readiness have especially increased the role and importance of military discipline. This has made it necessary to review, amend, and supplement the all-service regulations (Disciplinary Regulations, Internal Service Regulations, and the Garrison and Guard Duty Regulations), primarily to raise the requirements for diligence, organization, and regimentation in units throughout all services. In view of the special importance of these regulations to the

organizational development of the Soviet Armed Forces, as well as to the further improvement of socialist legality, they were ratified on 30 July 1975 by an edict of the Presidium of the Supreme Soviet of the USSR. This places on military personnel a special responsibility to observe strict discipline, orderliness, and conformity to regulations, manuals, and instructions, without which mastery of modern means of combat and the methods of using and servicing them would be unthinkable.

A characteristic feature of the present stage of the organizational development of the Soviet Armed Forces is the further strengthening of the role and importance of party-political work. This is attributable to the growth of the leading role of the Communist Party in Soviet society and, consequently, in the Soviet Armed Forces; to the rise in the influence of party organizations on all aspects of the life and training of the troops; to the increased demands for moral-political training and psychological preparedness of personnel due to the development of nuclear missiles and other weapons; to the need to combat bourgeois ideology and constantly growing subversive activities on the part of imperialism against the countries of socialism; to the elevation of the general educational and cultural level of servicemen; and to the shortening of the term served by enlisted men under the new Military Service Law.

The party policy calling for party-political work to play a greater role and exert a stronger influence on all aspects of Army and Navy life found vivid expression when the 22nd Party Congress adopted a program containing, in particular, this passage: "The ultimate basis of military organizational development is the Communist Party's direction of the Armed Forces, and the augmented role and influence of party organizations in the Armed Forces."³⁴ Putting into practice this program requirement, the party's Central Committee implemented a number of specific measures to increase the leading role of the Communist Party in the Armed Forces and to improve party-political work.

In April 1963, the CPSU Central Committee adopted the resolution "On the Creation of the Political Directorates of the Strategic Missile Forces," and in September 1967 it adopted the resolution "On the Creation of Political Directorates of the National Air Defense Forces, Air Force, and Navy; on the Creation of the Political Section of the Airborne Troops; and on the Organization of the Main Political Directorate of the Soviet Army and Navy." By a Central Committee decision, railroad troops and military construction units also got political directorates. The party apparatus was strengthened in the staffs and directorates of military districts, groups of forces, and fleets, and in the central elements of the Ministry of Defense.

In January 1967, the CPSU Central Committee adopted the resolution "On Measures to Improve Party-Political Work in the Soviet Army and

Navy." This document is imbued with concern about further strengthening party leadership in all spheres of Army and Navy life. It emphasizes that an extremely important condition for the successful accomplishment of the tasks confronting the Armed Forces is the utmost improvement of party-political work. Having noted the shortcomings in party-political work, the CPSU Central Committee assigned the task of raising it to the level of contemporary requirements—taking into consideration the adverse international situation, the radical changes in the organization and arming of the troops, and the nature of modern warfare—and improving political and organizational work with the mass of servicemen, concentrating the main effort on further improvement of the combat readiness of the Armed Forces.³⁵

Defined in the resolution were concrete measures directed toward raising the level and effectiveness of ideological and organizational party work, reinforcing the vigor and spirit of all primary party organizations in the Army and Navy, improving the direction of Young Communist League organizations, and refining the style and methods of operation of the political organs in the Armed Forces. The CPSU Central Committee recognized the advantage of creating political sections instead of party committees in military educational institutions, in research establishments, in the staffs and directorates of military districts, groups of forces, and fleets, and in the central apparatus of the Ministry of Defense.

An important measure aimed at improving the structure and strengthening the political organs and party-political apparatus of the Armed Forces was the introduction of the institution of deputy political officers in companies, batteries, squadrons, and equivalent units, and the related formation of higher military-political schools. The introduction of political workers at the company level is not a mechanical reversion to previous practice. It is rather the implementation of a major political and organizational measure on a new basis, taking into account the qualitatively new stage in the development of the Armed Forces and the considerable increase in the number of problems, including those in party-political work. The introduction of political workers into small units has permitted indoctrination work with personnel to be intensified considerably at the level where problems concerning political and combat training, the improvement of political and moral conditioning, and the strengthening of military discipline are solved in the first place.

The growing requirement for party-political work was reflected in a statute on the political organs of the Soviet Army and Navy, and in instructions to party organizations in the Soviet Army and Navy, which were ratified by the CPSU Central Committee in February 1973. These documents are an important step in the organizational development of the Armed Forces, contributing to increasing their combat readiness and

fighting strength and to refining the style and work methods of officers and all party members in the Armed Forces.

The statute on political organs emphasizes that the ultimate basis of military organizational development is the Communist Party's direction of the Armed Forces, the increased role of party organizations, and the strengthening of their influence on all aspects of the life and work of personnel. Political organs play a decisive role in the organization of party-political work in the field and afloat. They are the leading organs of the Communist Party in the Armed Forces. The proper organization of the political organs, their structure and responsibilities, and their relations with local party organs are precisely defined in the statute.

The aforementioned instructions to Soviet Army and Navy party organizations indicate that these organizations are called upon to implement CPSU policy firmly and consistently throughout the Armed Forces. The instructions reflect the goals of party organizations and the principles governing their creation and direction. They formulate the tasks of party organizations in intraparty life, including related organizational and ideological work and admission to the party. The functions of party organizations are to increase the fighting strength of the Soviet Armed Forces and to rally personnel around the Communist Party and indoctrinate them in the spirit of Marxism-Leninism, selfless devotion to the socialist Motherland, friendship between the nationalities of the USSR, proletarian internationalism, and class hatred toward imperialists and all enemies of communism, while actively promoting the solidarity of army and nation. Party organizations motivate personnel to maintain high vigilance and combat readiness, perform political and combat training tasks and tours of duty in an exemplary manner, and master weapons and combat equipment. Party organizations work to strengthen military discipline and unity of command and to develop in servicemen a spirit of irreproachable performance of their military duty, including total compliance with the orders of command and supervisory personnel.

The clauses in the instructions on the work of party organizations of the military administrative organs were also of great importance for solving problems in the organizational development of the Armed Forces. These party organizations were called on to fight actively for compliance with party and government directives, Ministry of Defense orders, and Soviet statutes. Party organizations were to use their influence to improve work style and efficiency, indoctrination of top-ranking military personnel, and implementation of CPSU rules on strict observance of party and state discipline.

The fifth all-armed forces conference of party organization secretaries was held in March 1973. In all, 130 participants spoke at plenary sessions and in section discussions. A resolution adopted at the conference contained

recommendations to further improve the work of party organizations and to strengthen their influence on all aspects of the life and work of the troops. Implementing these recommendations, the party organizations of the Armed Forces became significantly stronger ideologically and organizationally, and addressed themselves to the problems confronting the troops with increased vigor.

During the 5 years following the 24th CPSU Congress, about 250,000 of the best servicemen were admitted to party organizations in the Armed Forces. When considering candidates for admission to the party, special attention was paid to certain personnel categories. Among the influx of party members during the 9th Five-Year Plan, more than 60 percent were unit commanders, pilots and navigators, engineers and technical officers directly involved in the indoctrination of subordinates and in the political and combat training process.³⁶

The fact that one-fifth of Army and Navy personnel are party members testifies to the growth of the authority of Armed Forces party organizations and the strengthening of their ties with the mass of servicemen. Three-quarters of the officers are party members. More than half of the party members work directly in units or on ships. Party organizations and groups are active in most companies, batteries, and equivalent units.

Full-fledged party organizations are at work in all key sections of the Strategic Missile Forces. Profound party influence is assured in the National Air Defense Forces, above all in combat crews, aircrews, command posts, and ground control posts. In the Ground Forces, the party organizations of missile, tank, engineer, reconnaissance, and other units have become stronger. The fighting spirit of party organizations in the Navy and Air Force has increased.

The renewal of party cards, in accordance with a 24th CPSU Congress directive and a May (1972) Central Committee plenary session decision, was an important organizational and political measure to further strengthen the party. Completely satisfied in this work were the Central Committee's requirements to stimulate intraparty life, to raise the level of ideological and indoctrination work among the troops, and to increase the leading role of party members in political and combat training, in the performance of service and combat duty, and in sociopolitical activities.

Throughout the Soviet Armed Forces, the commander, the political organ, and the party organization have the loyalty and support of Young Communist League organizations, which, having gained strength ideologically and organizationally, and having become more active, are exerting greater influence on young servicemen. The 27th Congress of the All-Union Lenin Young Communist League indicated that at present the most important task of the Army and Navy Young Communist League

organizations is to assist commanders, political organs, and party organizations in indoctrinating young servicemen in communist ideology, in motivating them to master modern weapons and combat equipment, and in strengthening military discipline and organization.

The all-armed forces conference of secretaries of Young Communist League organizations held in March 1974 was a great event for the Armed Forces Young Communist League. Young Communist League activity in the Armed Forces was summarized at the conference, and new goals were determined for the future.

The level of party leadership in Young Communist League organizations has risen, and this has had a positive effect on the ideological and organizational growth of the Young Communist League and on its vigor and influence on young servicemen. During 1962-64 alone, the party component of Armed Forces Young Communist League organizations doubled.³⁷ By the beginning of the seventies, about a third of the secretaries of primary Young Communist League organizations were party members.³⁸

The Young Communist League organizations of the Armed Forces are playing a large part in the campaign to improve the combat training of personnel, strengthen military discipline, and increase the combat readiness of the troops.

In the National Air Defense Forces, the Soviet Navy, and the Soviet Air Force, almost half of the Young Communist League members are rated outstanding. Four out of five Young Communist League missilemen are qualified specialists, and almost every second one has a closely related specialty. Between the 24th and 25th CPSU Congresses alone, 6,000 young servicemen were awarded an order or medal of the Soviet Union for proficiency in combat training, expertise in handling complex new combat equipment, or for other achievements. Tens of thousands received certificates of merit from the Central Committee of the All-Union Lenin Young Communist League. More than 100,000 servicemen earned the right to sign the report of the 25th Party Congress on behalf of the Lenin Young Communist League.³⁹

An all-armed forces conference for personnel receiving outstanding ratings in political and combat training was held in May 1975. It contributed to the further development of innovations in the theory and practice of troop training. One of its aims was to organize the findings of those at the forefront of combat training to derive the fullest possible benefit from their experience and personal example to accomplish the missions assigned to the Armed Forces.

The ideological life of the Armed Forces has become richer in content and more diverse. Political indoctrination work has been enriched with new forms and methods, and there has been a noticeable improvement in its effectiveness for solving problems in the political and combat training of the troops. Publication of the military-political journal *Kommunist Vooruzhennykh Sil* [Communist of the Armed Forces] began in 1960.⁴⁰

Much experience in ideological work was gained while preparing for and commemorating the fiftieth anniversary of the Great October (1967), the fiftieth anniversary of the Soviet Armed Forces (1968), the centennial of Lenin's birth (1970), the 24th CPSU Congress (1971), the fiftieth anniversary of the formation of the USSR (1972), the thirtieth anniversary of victory in the Great Patriotic War (1975), the 25th CPSU Congress (1976), and the sixtieth anniversary of the Great October (1977).

Marxist-Leninist ideas were propagated on a grand scale during the International Conference of Communist and Workers' Parties in 1969 and the Conference of European Communist and Workers' Parties in 1976.

All all-armed forces conference of ideological workers was held in January 1975. Its delegates generalized their wide experience in ideological indoctrination work in the Armed Forces and defined the problems in such work under contemporary conditions. It was noted in the conference proceedings that consideration should be given to the significant increase in the volume and importance of ideopolitical measures. These are an important factor in solving a wide range of problems in the organizational development of the Armed Forces. Also noted in the proceedings were the intensification of the ideological campaign waged by the reactionary forces of imperialism against the Soviet Union and the entire socialist fraternity, and the growing importance of the sociopsychological and military aspects of personnel indoctrination. These circumstances urgently demand further improvement in the effectiveness of ideological work and the application in this work of the achievements of modern science, including new technological means. There is a growing need for a comprehensive approach to setting up the entire indoctrination process, while taking into consideration the various groups of servicemen.

Improvement of the political training system for all personnel categories in the Armed Forces continues. Varied means and forms of mass political, cultural, and educational work, as well as technical methods of dissemination, are used in the ideological indoctrination of servicemen.

Ideological and political work among the troops reached a new level following publication of the proceedings of the 25th Party Congress and promulgation of the resolution "On Party Training Tasks in Light of the Decisions of the 25th CPSU Congress," adopted by the Central Committee in June 1976.

Military councils, commanders, political organs, and party organizations are doing much political and organizational work among the mass of servicemen, concentrating the main effort on further increasing the combat readiness of the troops. This aim is achieved when each officer, general, and admiral daily engages in the indoctrination and ideological tempering of servicemen, so that no serviceman remains outside the sphere of political influence. The 25th CPSU Congress stressed the important social role played by the Soviet Armed Forces in ideological indoctrination work among the nation's youth. In effect, the Soviet Army is a unique, nationwide university from which virtually all young men of Soviet citizenship graduate.

The honorable and arduous service of Armed Forces personnel is highly esteemed by the party, the government, and the Soviet people. On the eve of the fiftieth anniversary of the Great October, a number of units, formations, and military educational institutions were awarded Commemorative Banners in the name of the CPSU Central Committee, Presidium of the USSR Supreme Soviet, and USSR Council of Ministers. Many military districts, fleets, formations, units, and military educational institutions were awarded state orders of the USSR.

An important event in Army and Navy life, and another vivid example of the concern shown by the Communist Party and the Soviet government for our servicemen, was the establishment, by an edict of the Presidium of the USSR Supreme Soviet dated 28 October 1974, of an order inscribed "For Service to the Motherland in the Armed Forces of the USSR." This order is awarded to servicemen in the Soviet Armed Forces, Border Troops, and Internal Troops for successes achieved in political and combat training, for maintaining high combat readiness of the troops, for mastery of new equipment, for successful accomplishment of special assignments, and for valor and selflessness displayed in the performance of military duty.

A practical conference for senior political personnel in the Armed Forces, held in July 1976, was convened to determine the main trends, forms, and means for further upgrading party-political work in the services. Pressing questions on the development of the party's structure in the services were discussed in light of the decisions made by the 25th CPSU Congress.

Thus, owing to the constant concern of the party's Central Committee and the Soviet government to strengthen the country's defensive capability, promote purposeful work by commanders, political organs, and party organizations, and encourage great activity and intense toil on the part of all Soviet servicemen, the combat readiness of the troops has increased. The quality of training in the field, at sea, and in the air has risen. In all

services and branches, a shortening of the time needed to bring troops, combat equipment, and weapons to combat readiness has been achieved.

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The main trend in the organizational development of the Soviet Armed Forces under present conditions is toward a further increase in their fighting strength while maintaining constant readiness to soundly repulse any aggressor. The objective conditions for this continuous process are the result of the stability of the Soviet social order and state regime, the growing power of the countries of the socialist fraternity, and scientific and technological progress.

The Soviet Armed Forces stand reliably on guard for the gains of socialism. Displaying untiring concern for the security of the Soviet people and the peoples of all socialist countries, the Communist Party and the Soviet government are doing everything necessary to strengthen the material and technological base of the Armed Forces, and are constantly improving the organizational structure of the troops.

Provided with first-class weapons and combat equipment, boundlessly dedicated to the Motherland, the Communist Party, the Soviet government, and communism, the Soviet Armed Forces, together with the armies of the fraternal socialist countries, vigilantly guard the builders of socialism and communism in their peaceful toil and are always ready to soundly repulse any aggressor.

Notes

1. *Pravda*, 5 Feb. 1977.
2. *Istoriya vneshney politiki SSSR* [History of USSR Foreign Policy], II (1945-75), 430.
3. *Kommunist* [(Communist)], 1977, No. 3, p. 18.
4. *Armii stran NATO* [Armies of the NATO Countries] (Moscow, 1974), p. 13.
5. R. G. Simonyan, *Voyennyye bloki imperializma* [Military Blocs of Imperialism] (Moscow, 1976), p. 165.
6. *XXII s'yezd Kommunisticheskoy partii Sovetskogo Soyuza. Stenograficheskiy otchet* [22nd Congress of the Communist Party of the Soviet Union: Stenographic Record], III, 311.
7. *CPSU in Resolutions* (Moscow, 1972), X, 357.
8. *O 60-y godovshchine Velikoy Okt'yabr'skoy sotsialisticheskoy revolyutsii. Postanovleniye TsK KPSS ot 31 yanvarya 1977 goda* [On the Sixtieth Anniversary of the Great October Socialist Revolution: A CPSU Central Committee Resolution Dated 31 January 1977], p. 24.
9. *Materialy XXV s'yezda KPSS* [Proceedings of the 25th CPSU Congress], p. 166.
10. Compiled from *SSSR v tsifrakh v 1975 godu. Kratkiy statisticheskiy sbornik* [USSR in Figures in 1975: A Brief Statistical Compendium] (Moscow, 1976), pp. 86-87; *Materialy XXV s'yezda KPSS* [Proceedings of the 25th CPSU Congress], p. 137.
11. M. V. Frunze, *Selected Works*, p. 188.

12. *Materialy XXIV s'yezda KPSS* [Proceedings of the 24th CPSU Congress] (Moscow, 1971), p. 46.
13. *O 60-y godovshchine Velikoy Oktyabr'skoy sotsialisticheskoy revolyutsii. Postanovleniye TsK KPSS ot 31 yanvarya 1977 goda* [On the Sixtieth Anniversary of the Great October Socialist Revolution: A CPSU Central Committee Resolution Dated 31 January 1977], p. 9.
14. L. I. Brezhnev, *Leninskim kursom. Rechi i stat'i* [Following Lenin's Course: Speeches and Articles], II, 256.
15. A. A. Yepishev, *Partiya—organizator nashikh pobed* [The Party: Organizer of Our Victories] (Moscow, 1976) p. 28.
16. *Materialy XXV s'yezda KPSS* [Proceedings of the 25th CPSU Congress], pp. 75-76.
17. *Istoriya vneshney politiki SSSR* [History of USSR Foreign Policy], II (1945-75), 433.
18. *Sbornik deystvuyushchikh dogovorov, soglasheniy i konventsii, zaklyuchennykh SSSR s inostranymi gosudarstvami* [Collection of Effective Treaties, Agreements, and Conventions Concluded by the USSR With Foreign States] (Moscow, 1974), No. 28, pp. 31-37.
19. *Pravda*, 1 April 1977.
20. *Pravda*, 19 Jan. 1977.
21. V. P. Glushko, *Raketnyye dvigateli GDL—OKB* [Rocket Engines From the Gas Dynamics Laboratory and the Special Design Bureau] (Moscow, 1975), pp. 33-34.
22. L. I. Brezhnev, *Leninskim kursom. Rechi i stat'i* [Following Lenin's Course: Speeches and Articles], I, 162.
23. A. S. Yakovlev, *50 let sovetskogo samoletostroyeniya* [Fifty Years of Soviet Aircraft Construction] (Moscow, 1968), p. 123.
24. *Sovetskaya aviatsionnaya tekhnika* [Soviet Aircraft Technology] (Moscow, 1970), p. 89.
25. *Journal of Military History*, 1976, No. 7, p. 32.
26. *Pravda*, 27 June 1967.
27. *Krasnaya zvezda*, 1 July 1976.
28. L. I. Brezhnev, *Leninskim kursom. Rechi i stat'i* [Following Lenin's Course: Speeches and Articles], II, 541.
29. *KPSS—organizator zashchity sotsialisticheskogo Otechestva* [The CPSU: Organizer of the Protection of the Socialist Fatherland] (Moscow, 1974), p. 409.
30. A. A. Yepishev, *Partiya—organizator nashikh pobed* [The Party: Organizer of Our Victories], p. 72.
31. *Materialy XXV s'yezda KPSS* [Proceedings of the 25th CPSU Congress], p. 70.
32. *Pravda*, 23 Feb. 1977.
33. L. I. Brezhnev, *Leninskim kursom. Rechi i stat'i* [Following Lenin's Course: Speeches and Articles], II, 49.
34. *XXII s'yezd Kommunisticheskoy partii Sovetskogo Soyuz. Stenograficheskiy otchet* [22nd Congress of the Communist Party of the Soviet Union: Stenographic Record], III, 312.
35. *CPSU on the Armed Forces*, pp. 415, 416.
36. A. A. Yepishev, *Partiya—organizator nashikh pobed* [The Party: Organizer of Our Victories], p. 54.
37. *The CPSU and the Organizational Development of the Soviet Armed Forces*, p. 441.
38. A. A. Yepishev, *Mogucheye oruzhiye partii* [Powerful Weapon of the Party] (Moscow, 1973), p. 167.
39. A. A. Yepishev, *Partiya—organizator nashikh pobed* [The Party: Organizer of Our Victories], p. 64.
40. Before 1960, two magazines were published: *Partiynno-politicheskaya rabota v Sovetskoy Armii i Voenno-Morskoy Flote* [Party-Political Work in the Soviet Army and Navy] and *Propagandist i agitator* [Propagandist and Agitator].

Conclusion

The Great October Socialist Revolution is the central event of the 20th century. Radically changing the history of mankind, this revolution led to the creation of the Soviet state and its Armed Forces. At the same time, the political foundations were laid for construction, the most important and complex phase of the socialist revolution. Characterizing the immense importance of these gains, V. I. Lenin noted that "... in the political and military fields we have made a universally historic step which has gone down in world history as an epoch-making event."

The advent and development of a massive standing army did not emerge from the nature or tasks of the socialist order, nor from the ultimate goals of the campaign for communism. Such an army was a countermeasure adopted by the working class and its militant vanguard, the Communist Party. This measure was provoked by the fierce armed resistance from foreign and domestic reaction, which hurled a huge regular army against the Soviet republic.

The total defeat of the foreign imperialists and their White Guard accomplices showed the workers of all countries the invincibility of the new socialist order, showed them the great strength of an army created by a revolutionary people, and showed them the correctness of the course adopted by the Communist Party in building the Soviet Armed Forces. During the years between the wars, our country's ever-growing defensive power and the combat readiness of the Red Army became important, decisive factors in securing the opportunity to implement Lenin's plan for building socialism in the USSR. This plan embraced all the main spheres of public life. Under the direction of the Communist Party, the Soviet Armed Forces, together with the entire Soviet nation, defended the freedom and independence of the Motherland during the Great Patriotic War and made a decisive contribution in saving European and world civilization from annihilation by the fascist barbarians.

Formation of the worldwide system of socialism led to expansion of the external function of the Soviet Armed Forces. They were now called upon to defend from attack not only their own country but also the entire socialist world. Moreover, they were called upon to prevent the imperialists from exporting counterrevolution and unleashing a new world war. This broadened the role of the Communist Party of the Soviet Union, as well as that of the other fraternal communist and workers' parties, in the organizational development of the armed forces in the socialist countries and in the strengthening of their combat unity.

From the first days of its existence, the Soviet state, when defining its goals in foreign policy, assigned the highest priority to ridding mankind of the burden of armaments, adhering firmly to Lenin's dictum that "... disarmament is the ideal of socialism."² Being a consistent champion of reductions in armaments and armed forces, the USSR repeatedly has submitted specific programs leading to a practical solution of this formidable problem in world politics, which is inseparable from military development. In recent years alone, more than 70 proposals have been put forward, aimed at preserving peace, at achieving disarmament, and at improving relations between the nations of the two diametrically opposed systems—the socialist system and the capitalist system.

However, the aggressive circles of the capitalist states do not wish to go the way of disarmament and an end to the arms race. The military threat posed by imperialism remains. In this situation, the Communist Party is paying extremely close attention to questions of national defense and the organizational development of the Soviet Armed Forces. The party program contains the following passage: "From the viewpoint of domestic conditions, the Soviet Union does not need an army. However, inasmuch as a military threat emanating from the imperialist camp remains, and inasmuch as full and universal disarmament has not been achieved, the CPSU considers it necessary to maintain the defensive might of the Soviet state and the combat readiness of its Armed Forces at a level ensuring the decisive and total defeat of any aggressor who dares to invade the Soviet Motherland."³

Experience in the organizational development of the Soviet Armed forces shows that throughout the entire history of the socialist state military questions have been settled in full accord with Marxist-Leninist theory and Communist Party policy. This has been done on the basis of the second and third party programs, and on the basis of directives and instructions formulated in resolutions put forth by congresses, conferences, Central Committee plenary sessions, and the Politburo.

The Communist Party's guidance of the organizational development of the Armed Forces is exercised by the Central Committee. The Central Committee plans the main trends for equipping the Armed Forces and improving their structure, selects and appoints top-ranking military personnel, watches over the vigilance and combat readiness of personnel, and concerns itself with their conduct and political consciousness. The CPSU Central Committee is in constant direction of the activity of political organs and party and Armed Forces Young Communist League organizations and works to improve the forms and methods of party-political work among enlisted men. The party's leading role in the Armed Forces, as in the country as a whole, is growing in a historically inevitable manner.

In creating the Armed Forces and determining ways to increase their fighting strength, the Communist Party and the Soviet government, during each historic stage through which the country has passed, has proceeded on the basis of Soviet society's general level of economic and sociopolitical development and ideological maturity. "The building of our army," noted V. I. Lenin, "could lead to successful results only because the building process was conceived in the spirit of the overall Soviet building experience. . . ." All the most important measures for the organizational development of the Armed Forces were implemented after a comprehensive assessment of the international situation, and with regard to the following factors: the nature of the missions confronting the USSR; the structure and scale of development of the national economy; the level of scientific and technological progress; the moral-political strength of the state; and the need to safeguard the Motherland and, in the postwar years, the countries of the socialist fraternity as well.

Throughout the entire history of the development of the Soviet Armed Forces major qualitative transformations have taken place, and are now taking place, under the influence of sociopolitical changes throughout the country. The advent of a state under the dictatorship of the proletariat resulted in the birth of an army of a new type, gave it fundamental advantages over the armies of capitalist states, and engendered the sources of its invincible might. Because of the complete and conclusive triumph of socialism, the Army became the weapon of a state that was common to the whole people. The Army derives support from the social relationships and moral level of developed socialism, from a historically unprecedented community—the Soviet people, the builders of communism.

Qualitative changes in the Soviet Armed Forces have also taken place because of economic, scientific, and technological development. Socialized industrialization and collectivization of agriculture and technical reequipping of the national economy led to major changes in armament and combat equipment not only in wartime but during the years between the wars. Under the influence of the scientific and technological revolution, radical transformations took place in the Soviet Army and Navy with the acquisition of nuclear weapons.

A knowledge and a comprehensive assessment of those foreign and domestic conditions that attend the development of the Soviet state and affect the organizational development of the Armed Forces guarantee the Communist Party a scientific approach to solving problems in equipping, organizing, manning, stationing, supplying, training, and indoctrinating the troops. In the approach to such problems, consideration is taken of the dependence of the equipment status of the troops on economic conditions; of the need to introduce scientific and technological advances into military affairs; of the accelerated updating and specialization of weapons; of the increase in the quality of personnel and the optimal numerical strength of

units and formations; of the growth of the role of a well-equipped standing army trained in peacetime; of proportionality and correlation in the development of the main components of the Armed Forces; of the strengthening of centralism and unity of command in the command and control system; and of the rise in the role and importance of combat readiness in the Armed Forces.

Practical measures implemented by the Communist Party and the Soviet government for the organizational development of the Armed Forces are based on principles worked out by V. I. Lenin. The most important of these principles include solidarity of the party leadership, a class approach, unity of army and nation, fidelity to proletarian internationalism, harmonious development of the services and branches, a cadre-type organization, centralism of control, and constant readiness to repulse an aggressor. These principles are embodied in Soviet military doctrine, as well as in orders and directives, regulations and manuals. Reflecting continuous refinement in military affairs, these principles are constantly added to and made more precise according to changes in the nature and content of warfare as a result of sociopolitical, scientific, and technological progress, and according to the correlation of class forces on the world arena.

The history of the organizational development of the Soviet Armed Forces testifies convincingly that at all stages of their development the key problem was always the level of equipment, which emerged as one of the main indicators of their fighting strength and ability to perform their historic role. Owing to the concern of the CPSU and the Soviet government, and to the heroic efforts of the nation during the years of Soviet power, the materiel of our Armed Forces made a gigantic leap from the 3-inch field gun to the intercontinental missile, from the horse-drawn machine-gun mount to the modern tank, from the slow-flying aircraft to its supersonic counterpart, and from the early submersible to the nuclear missile submarine.

Further development of the Armed Forces' logistical base has resulted from scientific and technological progress. Regularities may be observed in the growth of weapon range and firepower, in the diversification of combat equipment, in the accelerated updating of weapons that at the same time have become more complex and costly, in the increasing competition between offensive and defensive weapon systems, and so on. At present, science and technology are at such a high level that mankind is menaced by the danger that weapons even more destructive than the nuclear missile will be created.

Improvements in weapons and combat equipment and the ensuing changes in the nature and conduct of military operations, together with the specialization and integration of military science, have always had an impact on the organizational structure of our fighting forces. This has led

to fundamental changes in the correlation between the services and their branches and to changes in their position and relative importance as components of the military organization of the state. All this has given rise to the creation of new troop formations, new services, and new branches—in particular, the cavalry armies during the Civil War; the Soviet Air Force, airborne forces, and tank troops during the years between the wars; and the National Air Defense Forces and the Strategic Missile Forces during the postwar years.

The general policy in the organizational development of the Soviet Army and Navy consists in the creation of versatile Armed Forces and in harmonious and proportional development of all services and branches. Moreover, every effort is made to ensure that the organizational forms correspond to the demands of warfare and to the methods of conducting military operations.

The appearance of weapons of mass destruction in the enemy's arsenal made it extremely urgent to find better ways to safeguard the population and the national economy and to ensure that the normal daily life of the country would not be disrupted under wartime conditions. This led to the creation of our Civil Defense system, which became a component of the state system of peacetime and wartime measures.

An important process in the organizational development of the Soviet Armed Forces was the establishment of the most effective and rational system of manning. The armed forces of the proletarian state underwent four recruiting systems: the militia system (Red Guard), the volunteer system (January–May 1918), the mixed militia-cadre system (1923–38), and the cadre system. Each was necessary in its time, each resulted from the workers' class struggle for socialism, and each was shaped by the prevailing economic condition of the country, by the character of the international situation, and by the level of development of military equipment. At present, the role and importance of a regular army recruited under universal compulsory military service are greater than ever, as only such an army is capable of accomplishing the complex and crucial missions to defend the Soviet Union and the entire socialist fraternity.

Historical experience shows that an extremely important aspect of the organizational development of the Armed Forces is the production of highly educated, well-qualified officers who are boundlessly dedicated to the ideas of communism. The way to achieve this is to continue raising the level of general and specialized education received by command personnel in the Army and Navy. The training and indoctrination of Soviet servicemen is directed so that our Armed Forces are at a high level of combat readiness and have the ability to deal any aggressor a prompt and devastating retaliatory blow.

As armament develops, the relationship between soldier and military equipment changes, as does the nature of military service. In the application of military affairs there are two distinct trends: on the one hand, to adapt the weapon to the soldier for his greater convenience and his better performance in combat; and on the other hand, to produce in the soldier expertise, creative thought, self-sufficiency in practical problem-solving, and all-round development of his intellectual and physical abilities. The greater abundance and better quality of combat equipment and the immense destructive power of modern weapons make high morale and psychological preparedness more important than ever for personnel. All this leads objectively to the conclusion that the role of the soldier in warfare is gaining in importance.

The CPSU Central Committee and the Soviet government are untiring in their concern that there should be a genuine scientific basis for the organizational development of the Armed Forces and for the manner in which the troops are led, trained, and indoctrinated. Soviet military science, taking into account the ever-growing economic potential of the USSR, and guided by Marxist-Leninist methodology and Lenin's scientific and theoretical legacy, has achieved notable successes. Theoretical positions and practical recommendations have been drawn up for the most important problems in the art of war. Research has been done on the impact of the technology factor on the nature of modern warfare, on the conditions for the outbreak of a modern war and its duration, and on the role of sociopolitical, psychological, and morale factors in military operations. The course of further development has been defined for each service and branch. The vanguard nature of Soviet military science contributes to strengthening the defensive capability of our country and to increasing the combat readiness of our Armed Forces.

In his report to the 25th CPSU Congress, General Secretary L. I. Brezhnev said, "All these years, the party has paid due attention to strengthening the defensive capability of our country and to improving the Armed Forces. We can report to the Congress that we have accomplished a great deal. Our Armed Forces are better equipped with modern weapons and combat equipment, and there has been an improvement in the quality of combat training and in the ideological tempering of personnel. . . .

"There should be no doubt in anyone's mind that our party will do all that is necessary to ensure that the glorious Armed Forces of the Soviet Union will continue to have at their disposal all that is necessary to perform their crucial mission: to stand guard over the peaceful toil of the Soviet people, and to be a bulwark of world peace."

The whole history of the Soviet Armed Forces and their entire heroic path testify to the historical inevitability of their successes. The sources of these successes are ultimately rooted in the unity of army and nation, in

the superiority of the socialist order over the capitalist order, in Soviet politics and economics, in Marxist-Leninist ideology, and in the correlation of class forces on the world arena, which is constantly changing in favor of socialism.

The experience of the Soviet Armed Forces is of immense international importance. The communist and workers' parties of the fraternal countries are studying this experience intently and are making extensive use of it in the development of their own armies.

The Soviet Armed Forces, in closed ranks with the armies of the fraternal socialist countries, stand vigilantly on guard for peace and socialism, always ready to vanquish any aggressor. The guarantee of this is the growing defensive and economic might of the USSR and the entire socialist fraternity, the unity of army and nation, and the Communist Party's wise direction of the defense of the socialist Fatherland.

Notes

1. Lenin, XLIV, 324.
2. Ibid., XXX, 152.
3. *XXII s'yezd Kommunisticheskoy partii Sovetskogo Soyuza. Stenograficheskiy otchet* [22nd Congress of the Communist Party of the Soviet Union: Stenographic Record], III, 311.
4. Lenin, XL, 76-77.
5. *Materialy XXV s'yezda KPSS* [Proceedings of the 25th CPSU Congress], p. 83.

Dates of Important Events

1917

- 7 November (25* October)—Victory of the Great October Socialist Revolution.
- 8 November (26 October)—The Committee for Military and Naval Affairs is formed within the Council of People's Commissars.
- 9 November (27 October)—The Naval Revolutionary Committee is created by decision of naval delegates to the 2nd All-Russian Congress of Soviets.
- 23 November (10 November)—The Council of People's Commissars issues a decree reducing the Army's numerical strength.
- 6 December (23 November)—The Council of People's Commissars passes a resolution creating the Collegium of People's Commissars for Military Affairs.
- 8 December (25 November)—The Council of People's Commissars passes a resolution forming the Supreme Naval Collegium.
- 9 December (26 November)—The All-Russian Commission is created to direct all activity in supplying the Army with equipment and rations.
- 29 December (16 December)—The Council of People's Commissars issues the decrees "On Elective Command and the Organization of Authority in the Army" and "On Granting Equal Rights to All Armed Forces Personnel."
- December—The formation of regular aviation units begins.

1918

- 2 January (20 December)—The All-Russian Collegium is created to direct the Air Force of the Republic.
- 14 January (1 January)—V. I. Lenin speaks to the first echelons of the socialist army to leave for the front.
- 16 January (3 January)—The All-Russian Central Executive Committee adopts the Leninist "Declaration of the Rights of the Working and Exploited People," which decrees the creation of a socialist Red Army of workers and peasants.
- 17 January (4 January)—The People's Commissariat for Military Affairs publishes a statute on the organization of a socialist army.
- 28 January (15 January)—The Council of People's Commissars issues a decree on the organization of the Workers' and Peasants' Red Army (RKKA).
- 11 February (29 January)—The Council of People's Commissars issues a decree on the organization of the Workers' and Peasants' Red Navy (RKKF).
- 14 February—The People's Commissariat for Military Affairs issues an order opening the first 13 officer training courses for the Red Army.
- 23 February—The Executive Committee of the Petrograd Soviet declares 23 February to be Protect the Socialist Homeland Day. Masses of workers begin to join the Red Army. In commemoration of the nation's tremendous enthusiasm in defending the socialist Fatherland, and to commemorate the resistance offered by Red Army detachments to the German invaders, 23 February is celebrated as a national holiday—Soviet Army and Navy Day.
- 4 March—The Council of People's Commissars passes a resolution creating the Supreme Military Council of the Republic.
- 6-8 March—The 7th Congress of the Russian Communist Party (of Bolsheviks) [RKP(b)] is held in Petrograd.
- 19 March—The Council of People's Commissars passes a resolution on widespread recruitment of military specialists from the old army into the Red Army.
- 31 March—The Supreme Military Council of the Republic establishes military districts.

*[The dates in parentheses apply to the "Old Style" (Julian) calendar used in Tsarist Russia—U.S. Ed.]

6 April—The People's Commissariat for Military Affairs and the Supreme Military Council ratify a statute on military commissars and members of military councils.

8 April—The Council of People's Commissars issues a decree creating a local military apparatus in the Soviet republic and establishing commissariats for military affairs at the rural district, province, and district levels.

—The All-Russian Bureau of Military Commissars is founded.

22 April—The All-Russian Central Executive Committee ratifies the wording for the solemn promise for new RKA recruits.

—The All-Russian Central Executive Committee issues a decree on the procedure for filling posts in the Workers' and Peasants' Red Army. Command by election is abolished, and a strict procedure for appointing officers is instituted.

—The All-Russian Central Executive Committee decrees that all workers must receive instruction in military affairs.

24 April—The People's Commissariat for Military Affairs forms the Supreme Military Inspectorate of the Red Army.

8 May—The All-Russian Main Staff is formed.

24 May—The Main Directorate of the Workers' and Peasants' Red Air Force (RKKVF) is formed.

28 May—The Council of People's Commissars passes a decree establishing a border guard.

29 May—The All-Russian Central Executive Committee issues a decree on the mobilization of workers into the Workers' and Peasants' Red Army.

1 June—The first issue of the Red Army's theoretical journal *Voyennoye delo* [Military Affairs] appears.

4 July—The 5th All-Russian Congress of Soviets passes a resolution forming the regular Red Army.

29 July—The RKP(b) Central Committee passes a resolution on the first mass mobilization of party members for the front.

19 August—The Council of People's Commissars issues a decree unifying all armed forces of the republic under the authority

of the People's Commissariat for Military Affairs.

2 September—By a resolution of the All-Russian Central Executive Committee, the Soviet republic is declared to be a unified armed camp. The Revolutionary Military Council of the Republic is established, and the Supreme Military Council is abolished.

11 September—The Revolutionary Military Council of the Republic defines the structure of the army in the field and introduces a frontal-type organization.

16 September—The All-Russian Central Executive Committee issues a decree establishing the Order of the Red Banner.

2 October—The Revolutionary Military Council of the Republic establishes the Field Staff.

—A political section is formed in the Revolutionary Military Council of the Republic to direct political work in the army in the field.

3 October—V. I. Lenin signs a letter to the combined session of the All-Russian Central Executive Committee and the Moscow Soviet on the need to raise the strength of the Red Army to three million.

9 October—The Revolutionary Military Council of the Republic ratifies a resolution on the All-Russian Bureau of Military Commissars.

25 October—The RKP(b) Central Committee passes the resolution "On Party Work in the Army."

30 November—The All-Russian Central Executive Committee issues a decree forming the Workers' and Peasants' Defense Council under the chairmanship of V. I. Lenin.

5 December—The Council of People's Commissars passes a resolution on the commander in chief of the Armed Forces of the Republic and on the commanders of fronts and armies.

—The Revolutionary Military Council of the Republic issues an order forming political sections in the Red Army.

December—Internal Service Regulations and Garrison Duty Regulations are promulgated for the Workers' and Peasants' Red Army.

1919

- 10 January**—The "Instruction to Party Cells of Red Army Units at the Front and in the Rear," approved by the RKP(b) Central Committee, is published.
- 15 January**—The All-Russian Central Executive Committee approves the Infantry Drill Manual for the Workers' and Peasants' Red Army, Part 1: Drill Instruction.
- 30 January**—The All-Russian Central Executive Committee approves the RKKA Disciplinary Regulations.
- 18-23 March**—The 8th RKP(b) Congress is held in Moscow.
- 26 May**—The Political Directorate is formed in the Revolutionary Military Council.
- 28 May**—The Defense Council passes a resolution creating the Internal Security Troops of the Republic.
- 26 June**—The 1st Cavalry Corps is formed.
- 27 July**—The Revolutionary Military Council of the Republic directs the All-Russian Main Staff to prepare to put the Red Army on a peacetime footing and to study the problem of demobilizing the Army while making a transition to the militia system.
- 14 November**—The All-Russian Central Executive Committee approves the Infantry Drill Manual for the Workers' and Peasants' Red Army, Part 2: The Infantry in Combat.
- 17 November**—The Revolutionary Military Council of the Republic passes a resolution creating the 1st Cavalry Army from the 1st Cavalry Corps.
- 11-15 December**—An all-Russian congress of Red Army and Navy political workers is held.

1920

- 26 January**—By order of the Revolutionary Military Council of the Republic, the following are announced: statutes on front, army, and division political sections, and a general statute on military district political and educational directorates.
- 31 January**—The Higher Rifle School for Red Army Command Personnel is formed.
- 13 February**—The RKP(b) Central Committee ratifies the new "Instruction to

RKP(b) Organizations of Red Army Units in the Rear and at the Front."

- 8 March**—The Politburo of the RKP(b) Central Committee discusses the transition of the Soviet republic's military organization to the militia system.
- 25 March**—The Revolutionary Military Council of the Republic issues an order creating the Main Directorate of the Workers' and Peasants' Red Air Force of the Republic.
- March**—The Defense Council is renamed the Council of Labor and Defense of the RSFSR.
- 29 March-5 April**—The 9th RKP(b) Congress is held. The congress passes the resolution "On the Transition to the Militia System."
- 16 July**—The 2nd Cavalry Army is formed.
- 1 September**—The Council of Labor and Defense passes a resolution on the Internal Service Troops of the Republic.
- 23 October**—The Council of Labor and Defense passes a resolution on the restoration of the Baltic Fleet.

1921

- 19 January**—The Council of Labor and Defense forms the troops of the All-Russian Extraordinary Commission for Combating Counterrevolution and Sabotage.
- January**—An All-Russian conference of Red Army and Navy political workers is held.
- 10 February**—The Field Staff and the All-Russian Main Staff are re-formed into a single RKKA Staff.
- 25 February**—An RKP(b) Central Committee plenary session considers the demobilization of the Red Army.
- 8-16 March**—The 10th RKP(b) Congress is held.
- 6 May**—The Revolutionary Military Council of the Republic issues an order detaching armored forces from engineer troops. An independent directorate is formed for the chief of RKKA armored forces.
- 27 June**—The RKP(b) Central Committee passes the resolution "On Relations Between Red Army and Navy Political Sections and RKP Party Organizations."
- The RKP(b) Central Committee rati-

fies a statute on party commissions in the Red Army and Navy.

- 31 October**—The RKP(b) Central Committee ratifies the "Instruction to RKP Cell Organizations of the Red Army and Navy in the Rear and at the Front."

1922

- 25 March**—The Presidium of the All-Russian Central Executive Committee decides that all Red Army and Navy personnel should make the revolutionary solemn promise—the Red Oath of Allegiance. The date set for administering the oath is 1 May.
- 27 March-2 April**—The 11th RKP(b) Congress is held.
- 28 September**—The All-Russian Central Committee and the Council of People's Commissars issue a decree defining the terms of service and manning procedure for the Red Army.
- September**—The commander in chief of all the Armed Forces issues an order establishing a single system of formal political instruction in the Army and Navy.
- 16 November**—The Politburo of the RKP(b) Central Committee, with the participation of V. I. Lenin, considers reducing the numerical strength of the Red Army.

1923

- 12 January**—Territorial buildup in the Red Army begins.
- 9 February**—The RKP(b) Central Committee ratifies a statute on the work of the Russian Young Communist League in the Red Army and Navy.
- 17-25 April**—The 12th RKP(b) Congress is held.
- May**—The RKP(b) Central Committee decides to introduce the institution of deputy political instructors in the Red Army and Navy.
- 2 June**—The RKP(b) Central Committee passes a resolution on an inquiry into the War Department, appointing a special military commission under the chairmanship of V. V. Kuybyshev for this purpose.
- 17 July**—The Council of People's Commissars passes a resolution forming the Council of Labor and Defense of the

USSR under the chairmanship of V. I. Lenin.

- 8 August**—The Council of People's Commissars issues the decree "On the Organization of Territorial Units and the Conduct of Military Training for Workers."
- August**—The military and naval commissariats are combined to form a single All-Union People's Commissariat for Military and Naval Affairs.
- 18 October**—The Politburo of the RKP(b) Central Committee passes a resolution creating the Defense Commission.
- October**—An all-union conference of Red Army and Navy political workers is held.

1924

- 1 January**—The first edition of the newspaper *Krasnaya zvezda* is published.
- 6 March**—The RKP(b) Central Committee approves the proposals submitted by the military commission appointed to investigate the Red Army. These proposals form the basis for the 1924-25 reforms.
- 21 March**—The Central Executive Committee and the Council of People's Commissars pass a resolution on terms of service in the RKKA, RKKF, and military component of the OGPU.
- 28 March**—The Revolutionary Military Council of the USSR issues an order reorganizing the central apparatus of the military administration.
- 31 March-2 April**—An RKP(b) Central Committee plenary session passes the resolution "On the War Department."
- 15 April**—The Revolutionary Military Council of the USSR issues an order reorganizing the district apparatus of the military administration.
- The Main Directorate of the Workers' and Peasants' Red Air Force is renamed the Directorate of the Air Force.
- 23-31 May**—The 13th RKP(b) Congress is held.
- 20 June**—The Revolutionary Military Council of the USSR issues an order authorizing the wearing of rank insignia.
- 28 July**—The RKP(b) Central Committee recognizes unity of command to be an expedient principle for Soviet military organizational development and instructs the Revolutionary Military Council of

the USSR to fix the forms, methods, and schedule for its introduction.

30 July—The Revolutionary Military Council of the USSR issues an order abolishing the rank of Red commander and introducing, for all command personnel, the rank of commander of the Workers' and Peasants' Red Army.

16 September—The Revolutionary Military Council of the USSR defines the organizational structure of the Soviet Air Force.

7 October—The Revolutionary Military Council of the USSR issues an order introducing new tables of organization and equipment for rifle formations and strategic cavalry.

30 December—The RKP(b) Central Committee ratifies the "Instruction to RKP(b) Cells in the Red Army and Navy."

1925

4 January—The Revolutionary Military Council of the USSR issues an order enacting a statute on political leaders in Army and Navy units.

5 February-3 March—The first all-armed forces conference of party cell secretaries is held.

March—The Revolutionary Military Council of the USSR issues an order introducing unity of command in the Army.

March—The RKP(b) Central Committee ratifies the directive "On Unity of Command in the Red Army."

9 March—The Revolutionary Military Council of the USSR issues an order introducing the rank of noncommissioned officer in the RKKA and RKKF.

May—The Revolutionary Military Council of the USSR approves the first Navy Regulations of the RKKF.

21 July—The Political Directorate of the RKKA and RKKF approves a statute on party education in the Red Army and Navy.

8 September—The Revolutionary Military Council of the USSR issues an order enacting new peacetime statutes on the political administration of the RKKA, the political directorate of a military district (front and army), the political section of a formation, and the political apparatus of a unit.

17 September—The Revolutionary Military Council of the USSR issues an order introducing certain interim regulations: Artillery Field Manual, Cavalry Field Manual, Part 2, RKKA Field Service Regulations (division, corps), Rifle Regulations, and Armored Forces Regulations.

18 September—The All-Russian Central Executive Committee passes a law on compulsory military service. The law defines the organizational structure of the Armed Forces, including ground, naval, and air forces, OGPU troops, and escort troops.

23 September—The Revolutionary Military Council of the USSR issues an order introducing new Interim Disciplinary Regulations for the RKKA.

30 November—The Revolutionary Military Council of the USSR issues an order announcing a statute on RKKA military schools.

18-31 December—The 14th Congress of the All-Union Communist Party (of Bolsheviks) [VKP(b)] is held.

1926

11 June—The Central Executive Committee and the Council of People's Commissars pass a resolution enacting a new statute on the revolutionary Red Banners of RKKA units.

December—The Council of Labor and Defense approves a 6-year (1926-32) naval shipbuilding program.

1927

6 May—The VKP(b) Central Committee passes the resolution "On Work With Future Conscripts and the Conscribed Personnel of Territorial Units."

23 June—The Council of Labor and Defense prescribes the strength of the RKKA as 617,000 men for 1927-29.

10-17 July—The first Defense Week is held.

2-19 December—The 15th VKP(b) Congress is held.

1928

26 March-1 April—The second all-armed forces conference of party cell secretaries is held.

27 April—The Revolutionary Military Council of the USSR issues an order enacting a statute on the political administration of the RKKA.

16 May—The Revolutionary Military Council of the USSR issues an order enacting the first statute on the air defense of the USSR in wartime.

15-22 July—The second Defense Week is held.

8 August—The Central Executive Committee and the Council of People's Commissars enact a new law on compulsory military service.

1 November—The VKP(b) Central Committee ratifies the "Instruction to VKP(b) Cells in the Red Army."

24 November—The Revolutionary Military Council of the USSR issues an order enacting a statute on commissars, combined military and political commanders, and political officers.

10 December—The VKP(b) Central Committee passes the resolution "On the Work of Military Cells."

1929

25 February—The VKP(b) Central Committee passes the resolution "On Command and Political Personnel in the RKKA."

15 July—The VKP(b) Central Committee passes the resolution "On the USSR's State of Defense."

18 July—The Revolutionary Military Council of the USSR passes a resolution elaborating the five-year plan for military development and creating an experimental mechanized unit.

—The Revolutionary Military Council of the USSR passes a resolution on RKKA armored and artillery armament for 1929-32.

—The RKKA's Directorate for Mechanization and Motorization is established.

6 August—The Revolutionary Military Council of the USSR issues an order creating the Special Far Eastern Army.

31 October—The Revolutionary Military Council of the USSR issues an order introducing peacetime tables of organization and equipment for the RKKA's naval forces.

22 November—The Revolutionary Military Council of the USSR issues an order

enacting a statute on the RKKA's Directorate for Mechanization and Motorization.

1930

23 January—The Revolutionary Military Council of the USSR approves a plan for the organizational development of the RKKA Air Force during 1930-33.

6 April—The Central Executive Committee of the USSR passes a resolution establishing the Order of Lenin and the Order of the Red Star.

13 June—The Revolutionary Military Council of the USSR approves an amplified plan for the organizational development of the RKKA during 1929-32.

23 June—The Revolutionary Military Council of the USSR passes a resolution on the engineer equipment system of the RKKA.

26 June-13 July—The 16th VKP(b) Congress is held.

23 July—The Central Executive Committee and the Council of People's Commissars pass a resolution abolishing administrative-territorial districts.

13 August—The Central Executive Committee enacts a law on compulsory military service.

21 November—The VKP(b) Central Committee ratifies a statute on Young Communist League cells in the Red Army.

December—The Revolutionary Military Council of the USSR passes the resolution "On the Air Defense of the Rear Area."

1931

10 January—The Revolutionary Military Council of the USSR approves an amplified calendar plan for the RKKA's organizational development during 1931-33.

7-10 May—The third all-armed forces conference of party cell secretaries is held.

May—A coastal defense development plan for 1931-33 is approved.

5 June—The VKP(b) Central Committee passes the resolution "On Command and Political Personnel in the RKKA."

1932

- 23 March—The Revolutionary Military Council of the USSR passes the resolution "On the Organizational Principles of the RKKA Air Force."
- 10 May—The Revolutionary Military Council of the USSR passes a resolution creating the RKKA's Directorate for Air Defense.
- 21 May—The Defense Commission under the Council of People's Commissars passes a resolution on the development of a number of RKKA academies from the departments of the Military Technical Academy.
- The Revolutionary Military Council of the USSR passes a resolution creating a mechanized corps.
- 14 November—The Defense Commission proposes that the Revolutionary Military Council undertake a radical reorganization of rifle troops and cavalry on the basis of the materiel available to the RKKA.
- 11 December—The Revolutionary Military Council of the USSR passes a resolution on the deployment of motorized airborne detachments.

1933

- 28 April—The Council of People's Commissars passes a resolution designating the third Sunday in August as Soviet Air Force Day.
- 11 June—The Council of Labor and Defense passes the resolution "On the Naval Construction Program for 1933-38."

1934

- 26 January-10 February—The 17th VKP(b) Congress is held.
- 22 March—The Council of Labor and Defense passes the resolution "On RKKA Artillery Armament for the 2nd Five-Year Plan."
- 23 March—The VKP(b) Central Committee ratifies the new "Instruction to VKP(b) Organizations in the Red Army."
- 16 April—The Central Executive Committee passes a resolution establishing the title Hero of the Soviet Union.
- 20 June—The Central Executive Committee passes a resolution abolishing the Revo-

lutionary Military Council and renaming the People's Commissariat for Military and Naval Affairs the People's Commissariat for Defense.

- 22 November—The Military Council is created under the People's Commissariat for Defense.

1935

- 25 April—The Council of Labor and Defense passes a resolution on Air Force development for 1935-37.
- 22 September—The Council of People's Commissars passes a resolution renaming the RKKA Staff the RKKA General Staff.
- The Central Executive Committee and the Council of People's Commissars pass a resolution introducing the rank Marshal of the Soviet Union and personal military ranks for command and supervisory personnel in the RKKA.

1936

- 11 April—The General Staff Academy is formed.
- 30 December—The People's Commissariat for Defense issues an order introducing Interim Field Service Regulations for the RKKA (PU-36).
- Personal ranks are introduced for command and supervisory personnel in the Navy.

1937

- 16 January—The VKP(b) Central Committee enacts a statute on the work of Young Communist League organizations in the Red Army.
- 28 April—The Defense Committee of the USSR is created.
- The Council of People's Commissars passes a resolution abolishing the Council of Labor and Defense.
- 10 May—The Central Executive Committee and the Council of People's Commissars pass a resolution establishing the institution of military commissars.
- Military councils are formed in military districts, armies, and fleets.
- 10 August—The Politburo of the VKP(b) Central Committee enacts a statute on military commissars in the RKKA.

30 December—The Central Executive Committee and the Council of People's Commissars pass a resolution forming the People's Commissariat for the Navy.
—The Politburo of the VKP(b) Central Committee decides to form the RKKF Political Directorate with the status of a Central Committee naval department.

1938

24 January—The Central Executive Committee passes a resolution establishing the medal 20 years of the RKKA.
31 January—The VKP(b) Central Committee passes a resolution creating the Military Production Commission under the Defense Committee.
7 March—The VKP(b) Central Committee and the Council of People's Commissars pass the resolution "On RKKA National Units and Formations."
13 March—The VKP(b) Central Committee and the Council of People's Commissars pass a resolution forming the Main Military Council of the RKKA and the Main Military Council of the Soviet Navy.
—The VKP(b) Central Committee ratifies a statute on Young Communist League organizations in the Red Army.
17 October—The Presidium of the Supreme Soviet issues an edict establishing the medals For Valor and For Combat Merit.

1939

3 January—The Presidium of the Supreme Soviet approves a new text for the military oath of allegiance and enacts a new statute on the procedure for administering it.
January—The VKP(b) Central Committee and the Council of People's Commissars pass a resolution reorganizing the People's Commissariat for Defense Production into four commissariats for the aircraft, shipbuilding, munitions, and weapons industries.
10-21 March—The 18th VKP(b) Congress is held.
28 April—The VKP(b) Central Committee ratifies a statute on Young Communist League organizations in the Red Army.

22 June—The VKP(b) Central Committee and the Council of People's Commissars pass a resolution designating the last Sunday in July as Soviet Navy Day and an annual holiday.
1 September—The Supreme Soviet passes a law on universal military service.
2 September—A session of the Supreme Soviet decides to institute partial mobilization.
11 October—The Council of People's Commissars approves a resolution on the guarding of the USSR's maritime borders.

1940

13 March—The Politburo of the VKP(b) Central Committee passes the resolution "On the Retraining, Recertification, and RKKA Mobilization Procedures for Party Committee Workers."
29 March—The People's Commissariat for Defense issues an order creating the Military Academy for Air Force Pilots and Navigators (now the Yu. A. Gagarin Air Force Academy).
March—A VKP(b) Central Committee plenary session reviews the results of the war with Finland and adopts the appropriate resolution.
April—The Main Military Council of the RKKA reviews the level of armament and equipment and makes a number of decisions.
7 May—The Presidium of the Supreme Soviet issues the edict "On the Institution of General and Flag Ranks for Senior Supervisory Personnel in the Armed Forces."
12 August—The Presidium of the Supreme Soviet issues the edict "On Reinforcement of Unity of Command in the Red Army and Navy."
16 October—The Presidium of the Supreme Soviet passes a resolution establishing the Gold Star Medal for those awarded the title Hero of the Soviet Union.
November—Personal military ranks are introduced for enlisted supervisory personnel in the Navy.
27 December—The People's Commissariat for Defense of the USSR issues an order transforming the RKKA's Directorate for Air Defense into the Red Army's Main Directorate for Air Defense.

1941

25 February—The VKP(b) Central Committee and the Council of People's Commissars pass a resolution reorganizing the Red Army Air Force.

February—The Council of People's Commissars of the USSR and the VKP(b) Central Committee pass the resolution "On Strengthening the Air Defense of the USSR."

22 June—The Great Patriotic War of the Soviet nation against the fascist German invaders begins.

—The Presidium of the Supreme Soviet issues an edict establishing martial law.

23 June—The VKP(b) Central Committee and the Council of People's Commissars pass a resolution creating the High Command General Headquarters of the Armed Forces of the USSR.

—The Council of People's Commissars passes a resolution transferring the civil air fleet to the operational control of the People's Commissariat for Defense.

27 June—The VKP(b) Central Committee passes a resolution mobilizing party members and outstanding Young Communist League members to strengthen party-political work in the Red Army.

30 June—The Presidium of the Supreme Soviet, the Council of People's Commissars, and the VKP(b) Central Committee pass a resolution forming the State Defense Committee.

2 July—The Council of People's Commissars passes a resolution on universal compulsory air-defense training for the public.

10 July—The State Defense Committee passes a resolution forming high commands for the Northwestern, Western, and Southwestern sectors and transforming High Command General Headquarters into Supreme Command General Headquarters.

16 July—The Presidium of the Supreme Soviet issues the edict "On Reorganizing the Political Propaganda Organs and Establishing the Institution of Military Commissars in the Workers' and Peasants' Red Army" (extended to the Navy on 20 July).

28 July—The State Defense Committee passes a resolution on the structural

reorganization of the rear organs of the Red Army.

8 August—The Supreme Command General Headquarters is converted to Supreme High Command General Headquarters.

19 August—The VKP(b) Central Committee passes a resolution on the procedure for party admission of Red Army enlisted and supervisory personnel with special distinction in combat.

17 September—The State Defense Committee passes the resolution "On Universal Compulsory Instruction of Soviet Citizens in Military Affairs."

18 September—The birth of the Soviet Guards.

9 December—The VKP(b) Central Committee passes a resolution reducing the party membership candidacy period for servicemen distinguishing themselves in combat against the fascist German invaders.

1942

5 March—Long-Range Bomber Aviation is re-formed into Long-Range Aviation and subordinated to Supreme High Command General Headquarters.

5 May—Air armies begin formation from army and Frontal Aviation.

20 May—The Presidium of the Supreme Soviet issues an edict establishing the Order of the Patriotic War, Classes I and II.

21 May—Guards ranks are introduced for Red Army personnel.

29 July—The Presidium of the Supreme Soviet issues an edict establishing the Order of Suvorov, Classes I, II, and III; Order of Kutuzov, Classes I and II; and the Order of Alexander Nevskiy.

9 October—The Presidium of the Supreme Soviet issues the edict "On the Introduction of Full Unity of Command and the Abolition of the Institution of Military Commissars in the Red Army" (extended to the Navy on 13 October).

21 December—The Presidium of the Supreme Soviet issues an edict approving a new Red Banner for Red Army units.

22 December—The Presidium of the Supreme Soviet issues an edict establishing the medals For the Defense of Leningrad, For the Defense of Odessa, For the Defense of Sevastopol', and For the Defense of Stalingrad.

1943

- 6 January—The Presidium of the Supreme Soviet issues an edict introducing new shoulder-board insignia for Red Army personnel (extended to the Navy on 15 February).
- 24 May—The VKP(b) Central Committee passes the resolution "On a Structural Reorganization of Red Army Party and Young Communist League Organizations and the Intensification of the Role of Front, Army, and Division Newspapers."
- May—Tank armies based on a new organization begin formation. The National Air Defense Forces are divided into two air defense fronts; the Directorate of the Commander of National Air Defense Forces is disbanded.
- 10 October—The Presidium of the Supreme Soviet issues an edict establishing the Order of Bogdan Khmel'nitskiy, Classes I, II, and III.
- 8 November—The Presidium of the Supreme Soviet issues an edict establishing the Order of Victory and the Order of Glory, Classes I, II, and III.

1944

- 3 March—The Presidium of the Supreme Soviet issues an edict establishing the Order of Ushakov, Classes I and II; Order of Nakhimov, Classes I and II; the Ushakov Medal; and the Nakhimov Medal.
- 1 May—The Presidium of the Supreme Soviet issues an edict establishing the medals For the Defense of Moscow and For the Defense of the Caucasus.
- 21 October—The Presidium of the Supreme Soviet issues an edict establishing Artillery Day as an annual holiday. 19 November is now celebrated as Missile Troops and Artillery Day.
- 5 December—The Presidium of the Supreme Soviet issues an edict establishing the medal For the Defense of the Soviet North.
- 6 December—At the decision of the State Defense Committee, Long-Range Aviation is attached to the 18th Air Army and subordinated to the commander of the Air Force.

1945

- 9 May—Victory Day over fascist Germany.
—The Presidium of the Supreme Soviet issues an edict establishing the medal For Victory Over Germany in the Great Patriotic War of 1941–1945.
- 9 June—The Presidium of the Supreme Soviet issues an edict establishing the medals For the Capture of Berlin, For the Capture of Budapest, For the Liberation of Belgrade, For the Liberation of Warsaw, and For the Liberation of Prague.
- 23 June—The 12th session of the Supreme Soviet passes a law demobilizing older age groups of the army in the field.
- 26 June—The Presidium of the Supreme Soviet issues an edict introducing the military rank Generalissimo of the Soviet Union.
- 1 August—A high command is created for Soviet troops in the Far East.
- 8 August—The Soviet Union declares war on imperialist Japan.
- 2 September—imperialist Japan capitulates. World War II ends.
- 4 September—The Presidium of the Supreme Soviet issues an edict abolishing the State Defense Committee.
- 6 September—The Presidium of the Supreme Soviet issues an edict extending the law demobilizing older age groups of the army in the field to Red Army troops in the Far East.
- 30 September—The Presidium of the Supreme Soviet issues an edict establishing the medal For Victory Over Japan.
- 8 December—The VKP(b) Central Committee passes a resolution putting servicemen on equal terms with all other citizens for party admission in accordance with VKP(b) rules.

1946

- January–February—Postwar Armed Forces organizational development is discussed in the Politburo of the VKP(b) Central Committee.
- 25 February—The Presidium of the Supreme Soviet issues an edict transforming the People's Commissariat for Defense into the People's Commissariat for the Armed Forces.
—The Presidium of the Supreme Soviet issues an edict abolishing the People's

Commissariat for the Navy.

—The Main Political Directorate for the Soviet Armed Forces is formed; political directorates are formed for the Ground Forces, Air Force, Navy, and Long-Range Aviation.

February-March—At the decision of the VKP(b) Central Committee and the Council of People's Commissars, the Supreme Military Council is created under the People's Commissariat for the Armed Forces, while the military councils are turned into advisory bodies under the commanders in chief.

15 March—In connection with the transformation of the Council of People's Commissars into the Council of Ministers, the Ministry of the Armed Forces is formed.

1 June—New Disciplinary Regulations for the Armed Forces are introduced.

June—The Airborne Troops become an independent branch directly subordinated to the minister of the Armed Forces.

11 July—The Presidium of the Supreme Soviet issues an edict establishing Tankmen's Day as an annual holiday celebrated on the second Sunday in September.

24 July—New Internal Service Regulations for the Armed Forces are introduced.

July—The Soviet Army's first missile unit is formed.

22 August—The VKP(b) Central Committee abolishes the practice of appointing party organizers and introduces an election system for the secretaries of party organizations.

1947

17 January—The Drill Manual for the Armed Forces is introduced.

March—The VKP(b) Central Committee ratifies a statute on the political organs of the Armed Forces.

10 June—The Presidium of the Supreme Soviet issues an edict approving a text of the military oath of allegiance and a statute on the procedure for administering it.

18 October—The Soviet Union's first successful ballistic missile launch takes place.

1948

22 February—The Presidium of the Supreme Soviet issues an edict establishing the medal 30 years of the Soviet Army and Navy.

June—A new national air defense system is introduced.

July—The National Air Defense Forces become an independent service of the Armed Forces.

1949

20 February—The Garrison and Guard Duty Regulations for the Armed Forces are introduced.

August—The Soviet Union sets off its first experimental nuclear explosion.

1950

21 January—The Politburo of the VKP(b) Central Committee decides to introduce the institution of deputy political officers for companies, batteries, and squadrons and to change the structure of party organizations.

25 February—The Presidium of the Supreme Soviet issues an edict forming the All-Union Ministry of the Navy and renaming the Ministry of the Armed Forces the Military Ministry.

July—The VKP(b) Central Committee and the Council of Ministers decide to transform the military councils into collegial organs for troop management.

1951

August—The first Soviet electronic computer, built under the supervision of Academician S. A. Lebedev, becomes operational.

1952

5-14 October—The 19th VKP(b) Congress is held.

1953

15 March—The Presidium of the Supreme Soviet issues an edict merging the Military Ministry and the Ministry of the Navy to form the Ministry of Defense.

August—A model of the hydrogen bomb is detonated experimentally in the Soviet Union.

1954

January—The Armed Forces of the USSR begin to study nuclear weapons and the tactics of their use in warfare.

September—The first large Soviet military exercise involving an actual atomic burst takes place.

1955

April—In accordance with a VKP(b) Central Committee decision, political directorates are once again formed for the services of the Armed Forces.

14 May—A treaty providing for friendship, cooperation, and mutual aid between the European countries of the socialist community is signed at Warsaw (the Warsaw Pact).

15 May—The decision of the Warsaw Pact states to create the Joint High Command for the Joint Armed Forces is published in the Soviet press.

1956

27-28 January—The Political Consultative Committee of the Warsaw Pact states considers and ratifies a statute on the Joint High Command.

14-25 February—The 20th Communist Party Congress is held.

1957

14-16 March—The first all-armed forces conference for servicemen receiving outstanding ratings in political and combat training is held.

27 April—The Presidium of the Central Committee ratifies an instruction to Soviet Army and Navy party organizations.

August—Intercontinental ballistic missile trials are conducted successfully in the Soviet Union.

29 October—A Central Committee plenary session passes the resolution "On Improving Party-Political Work in the Soviet Army and Navy."

18 December—The Presidium of the Supreme Soviet issues an edict establishing the anniversary medal 40 Years of the Armed Forces of the USSR.

1958

25 January—In accordance with an edict issued by the Presidium of the Supreme Soviet on 14 September 1957, the medal For Exemplary Service, Classes I, II, and III, is established by order of the minister of defense.

17 April—The Central Committee and the Council of Ministers pass the resolution "On the Military Councils of the Soviet Army and Navy" and a resolution ratifying a statute on military councils.

July—The Central Committee approves an instruction to Young Communist League organizations in the Soviet Army and Navy.

October—The Central Committee ratifies a new statute on the political organs of the Soviet Army and Navy.

1959

27 January-5 February—The 21st Extraordinary Communist Party Congress is held.

1960

15 January—A session of the USSR Supreme Soviet passes a law making a significant reduction in the numerical strength of the Armed Forces.

—The Presidium of the Supreme Soviet issues an edict ratifying the Internal Service Regulations and the Disciplinary Regulations for the Armed Forces.

January—The creation of a new service, the Strategic Missile Forces, is announced during a session of the Supreme Soviet.

11-14 May—The fourth all-armed forces conference of secretaries of primary party organizations is held.

22 June—The Central Committee and the Council of Ministers of the USSR pass the resolution "On the Creation of the Military Council for the Missile Forces."

1961

June—The Main Political Directorate and the Young Communist League Central Committee approve an instruction to Soviet Army and Navy Young Communist League organizations.

17-31 October—The 22nd Communist Party Congress is held.

1962

July—The Soviet nuclear-powered submarine *Leninskiy Komsomol* cruises to the North Pole.

1963

17 January—The Central Committee ratifies a statute on political organs and an instruction to party organizations in the Soviet Army and Navy.

4 April—The Central Committee passes a resolution creating the Political Directorate of the Missile Forces.

22 August—The Presidium of the Supreme Soviet issues an edict ratifying the Garrison and Guard Duty Regulations for the Armed Forces.

1964

20 July—The Central Committee and the Council of Ministers pass the resolution "On Measures to Further Improve the Preparation of Youths of Preinduction and Induction Age for Service in the Armed Forces of the USSR."

1965

26 March—The Council of Ministers passes a resolution establishing the M. V. Frunze Prize for outstanding scholarly works on military subjects.

27 March—The Presidium of the Supreme Soviet issues the edict "On the Term of Active Military Service for Enlisted Men With Higher Education."

7 May—The Presidium of the Supreme Soviet issues an edict establishing the medal 20th Anniversary of Victory in the Great Patriotic War of 1941-45.

1966

29 March-8 April—The 23rd Communist Party Congress is held.

7 May—The Central Committee and the Council of Ministers pass the resolution "On the State of, and Measures to Improve the Work of, the Voluntary Society for Assistance to the Army, Air Force, and Navy of the USSR (DOSAAF)."

September—The armies of the Warsaw Pact states conduct the joint exercise "Vihava."

1967

21 January—The Central Committee passes the resolution "On Measures for Improving Party-Political Work in the Soviet Army and Navy."

January—The Central Committee passes a resolution introducing the institution of deputy political officers for companies, batteries, and squadrons.

10 July—The Central Committee, the Presidium of the Supreme Soviet, and the Council of Ministers pass the resolution "On Establishing Memorial Banners for Military Units and Naval Vessels in Honor of the Fiftieth Anniversary of the Great October Socialist Revolution."

30 September—The Central Committee passes the resolution "On the Creation of Political Directorates of the National Air Defense Forces, Air Force, and Navy; on the Creation of the Political Section of the Airborne Troops; and on the Organization of the Main Political Directorate of the Soviet Army and Navy."

September—The Ministry of Defense conducts the "Dnepr" exercises.

12 October—The Supreme Soviet passes a new law on universal military service.

October—In accordance with a Central Committee decision, political directorates are once again formed in the services of the Armed Forces.

31 October—The Presidium of the Supreme Soviet issues an edict establishing the Order of the October Revolution.

7 November—The Soviet people and all progressive mankind triumphantly celebrate the fiftieth anniversary of the Great October Socialist Revolution.

December—The Presidium of the Supreme Soviet issues an edict establishing the anniversary medal 50 Years of the Armed Forces of the USSR.

1968

23 February—The fiftieth anniversary of the Soviet Armed Forces.

24 February—A "Greeting From the Central Committee, the Presidium of the Supreme Soviet, and the Council of Ministers to the Servicemen of the Heroic Armed Forces of the Soviet Union" is published for the fiftieth anniversary of the Soviet Army and Navy.

1969

- 17 March**—The Political Consultative Committee of the Warsaw Pact states ratifies a statute on the Defense Ministers Committee and a new statute on the Joint Armed Forces and Joint High Command.
- 27 May**—A "Greeting From the Central Committee to the Political Organs, Commanders, and Political Workers of the Soviet Army and Navy" is published for the fiftieth anniversary of the creation of political organs in the Armed Forces.
- 5 November**—The Presidium of the Supreme Soviet issues an edict establishing an anniversary medal marking the centennial of V. I. Lenin's birth. Two versions of the medal are struck, the inscriptions reading "For Labor Prowess. Commemorating the Centennial of Vladimir Il'ich Lenin's Birth"; and "For Military Valor. Commemorating the Centennial of Vladimir Il'ich Lenin's Birth."

1970

- March**—The Ministry of Defense conducts the "Dvina" troop maneuvers.
- April-May**—The Soviet Navy carries out the "Okean" maneuvers.
- October**—The armies of the Warsaw Pact states conduct the "Brotherhood-in-Arms" joint maneuvers.

1971

- 30 March-9 April**—The 24th Communist Party Congress is held.
- June**—The military exercise "South" is held.
- 13-16 October**—A conference of ideological workers in the Soviet Armed Forces is held.
- 18 November**—The Presidium of the Supreme Soviet issues an edict establishing the institution of Army and Navy warrant officers.

1972

- 22-23 March**—An all-armed forces conference of administrative staff from military educational institutions under the Ministry of Defense is held.
- 21 December**—The Soviet people and all progressive mankind triumphantly celebrate the fiftieth anniversary of the for-

mation of the Union of Soviet Socialist Republics.

1973

- January**—An all-armed forces conference of warrant officers is held.
- 16 February**—The Central Committee approves a new instruction to Soviet Army and Navy party organizations.
- 26-29 March**—The fifth all-armed forces conference of secretaries of party organizations is held.

1974

- 28 October**—The Presidium of the Supreme Soviet issues edicts establishing the order For Service to the Motherland in the Armed Forces of the USSR, Classes I, II, and III, and the medal For Distinction in Military Service, Classes I and II.
- December**—A conference of party committee secretaries and political section chiefs from the staffs of military districts, groups of forces, air defense districts, and fleets is held.

1975

- 28-29 January**—An all-armed forces conference of ideological workers is held.
- 20 February**—The Presidium of the Supreme Soviet issues an edict establishing National Air Defense Forces Day as an annual holiday celebrated on the second Sunday in April.
- 28-29 May**—An all-armed forces conference for servicemen receiving outstanding ratings in political and combat training is held.
- 30 July**—The Presidium of the Supreme Soviet issues an edict ratifying the Disciplinary Regulations, the Internal Service Regulations, and the Garrison and Guard Duty Regulations of the Armed Forces of the USSR.

1976

- 28 January-5 February**—The Transcaucasian Military District's corps training

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1977

exercise "Kavkaz" is held.

24 February-5 March—The 25th Communist Party Congress is held.

20 May—The Presidium of the Supreme Soviet issues an edict establishing the medal Veteran of the Armed Forces of the USSR.

14-18 June—The Leningrad Military District's training exercise "North" is held.

September—The armies of the Warsaw Pact states conduct the joint military exercise "Shield-76."

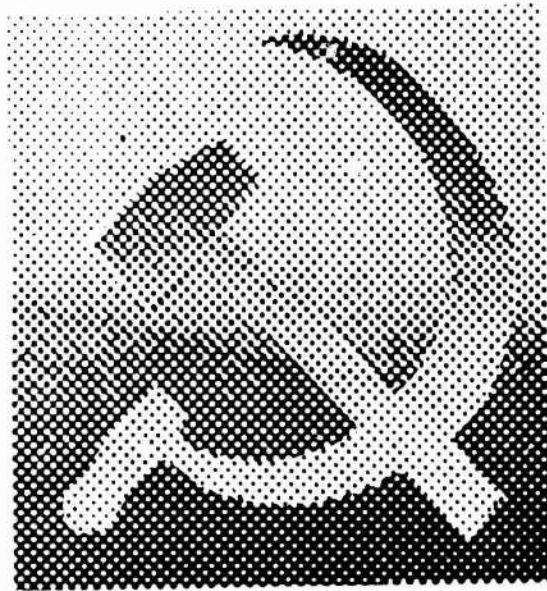
25-26 November—The Political Consultative Committee of the Warsaw Pact states meets in Bucharest.

21-29 March—The "Soyuz-77" command-and-staff exercise for the operational staffs of the Warsaw Pact states is held.

11-16 July—The troops of the Transcarpathian Military District conduct the "Karpaty" training exercises.

7 October—The new Constitution of the USSR, containing, for the first time, a chapter on the defense of the socialist Fatherland, is adopted.

7 November—The Soviet people and all progressive mankind triumphantly celebrate the sixtieth anniversary of the Great October Socialist Revolution.



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